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This survey to determine how the library resources in the Buffalo-Niagara area might be utilized in a regional Reference and Research Library Resources (3R's) system studied: (1) area library resources, (2) strength of the libraries at the State University of New York at Buffalo (SUNY Buffalo) and the Buffalo and Erie County Public Library (BECPL), (3) the needs of commuter undergraduates, and (4) funds available under the 3R's financing formula. Recommendations made to serve as guidelines when the 3R's system is formed were: (1) BECPL and SUNY Buffalo library would serve as primary resources in most subject areas, (2) The State University College at Buffalo would serve as principal reference center for undergraduates from all Buffalo area colleges except SUNY Buffalo, (3) SUNY College at Fredonia would serve all undergraduate needs southwest of Buffalo while Niagara University would serve these needs northwest of Buffalo, (4) St. Bonaventure University would serve as a supplementary research level center, (5) BECPL would continue its service to community business and commercial-financial interests, and (6) special libraries in the area would regularize access to their facilities and resources. Appendixes include the acquisitions policy of SUNY Buffalo, results of a title count comparison of BECPL and SUNY Buffalo collections, and data on special libraries. (JB)

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POSSIBILITIES FOR A REFERENCE AND RESEARCH LIBRARY SYSTEM IN THE BUFFALO-NIAGARA REGION

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April 1966

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April 25, 1966

Mr. Joseph B. Rounds, Director
Buffalo and Erie County Public Library
Lafayette Square
Buffalo 3, New York

Dear Mr. Rounds:

We submit herewith our report on the study of the reference and research library situation and prospects in the Buffalo-Niagara region. As you had foreseen, the importance of the collections at the Buffalo and Erie County Public Library and The State University at Buffalo libraries makes these two institutions the keystone for any program conceived for this area. However, the study has shown too that the present situation does not reflect a stable equilibrium; developments already foreseen promise a highly dynamic situation for some years to come. Any structure outlined for a reference and research program in the area must, therefore, incorporate the flexibility necessary to ensure prompt response to the changing situation.

The survey procedure depended heavily on the title counts undertaken by your staff and the library staff at The University at Buffalo. The task was a heavy one and special appreciation to Mr. Paul Rooney and Mr. Hugh Atkinson must be expressed; they have provided a most important basis for some of the judgments expressed in this report. Responsibility for the judgments themselves, however, must rest on Nelson Associates staff.

In addition to the uniquely valuable help of Mr. Rooney and Mr. Atkinson, we are also grateful to the librarians at the public and private colleges and universities in the area who provided both current and projected data about their libraries and their enrollments; to a number of the major industrial research institutions in the area for information provided in response to a questionnaire; to the Directors of the Chautauqua—Cattaraugus and Nioga library systems; and to a number of public and private officials who helped by the provision of social and economic data on the area.

MANAGEMENT CONSULTANTS • CABLE ADDRESS: NELSONCONS • BRANCH OFFICE: WASHINGTON, D. C.

Your own support and cooperation, and also that of Dr. Silverman, have been of inestimable value throughout the course of the study.

We hope this report may contribute to the continued expansion of reference and research services in the area in accord with the well-established traditions of your library.

Yours sincerely,

NELSON ASSOCIATES, INC.

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INTRODUCTION

This report concludes a survey to determine how the principal library resources in the Buffalo-Niagara area might be effectively utilized in a regional 3R's system.[1]

The geographic area of the region studied comprises the six counties: Chautauqua, Cattaraugus, Erie, Genesee, Niagara, and Orleans. The total population of the area at the time of the 1960 census was 1,620,674, distributed as follows:

County	Population
Chautauqua	145,377
Erie	1,064,688
Cattaraugus	80,187
Niagara	242,269
Orleans	34,159
Genesee	53,994

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[1] The "3R's system" refers to the proposed legislation first introduced in the 1960 legislature (Senate Introduction No. 490, Assembly Introduction No. 949), reintroduced in 1962 and for several years thereafter. To date no action has been taken by the legislature. The recommendations in the proposed legislation include: the creation of five or six regional reference and research library systems, each autonomous in operation but cooperating in an integrated statewide program; the establishment of an advisory State Reference and Research Library Resources Board; and a formula for state support for the regional and statewide programs. Previous Nelson Associates reports on the 3R's program are: A Reference and Research Library Resources Plan for the Rochester Area, 1962; Strengthening and Coordinating Reference and Research Library Resources in New York State, 1963; Prospects for Library Cooperation in New York City, 1963; and Basic Problems and Possibilities for a Reference and Research Library Resources System in Nassau and Suffolk Counties, New York, 1965.

The library resources available fall into three categories: public library resources, academic library resources, and special library resources. Each of these categories was examined separately in order to identify what contribution it could make to a regional program at the reference and research level.

At the advanced research level an assessment of the comparative strengths of the libraries of the State University of New York at Buffalo and the Buffalo and Erie County Public Library was made and other strong research resources were identified. In addition the needs of commuter undergraduate students were studied. Finally, the total funds available under the 3R's financing formula were estimated for the year 1970.

Chapter I

THE PUBLIC LIBRARIES IN THE SIX-COUNTY AREA

PART 1: THE BUFFALO AND ERIE COUNTY PUBLIC LIBRARY

The Buffalo and Erie County Public Library (BECPL) traces its origin, through a series of changes, back to 1836. Its holdings today are the largest of any public library in the state outside New York City.[1]

The library has, as did its forebears, a distinguished record of service to the community. The Young Men's Association, the earliest forerunner, was formed in 1836, as a membership library. The Grosvenor Collection, which grew to approximately one half million volumes before its merger to form BECPL, had begun in 1857 with a $40,000 bequest from an early Buffalo resident, Seth Grosvenor. Throughout the century of its independent existence it had functioned not only as a reference collection "to be always kept open for the use of the Public"[2] but as a central and focal point in the educational and cultural history of the city.

The Buffalo Public Library, "a free, public circulating and reference library for the use and benefit of the residents of the City of Buffalo" was established when the city contracted in 1897 to accept "in trust for a period of ninety-nine years"[3] the collection of the Buffalo

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[1] Volumes in Buffalo and Erie County Public Library (excluding branches), 1,207,184, as of December 31, 1964, according to library's annual report for 1964.

[2] From the will of Seth Grosvenor, as quoted in The Grosvenor Library and Its Times, Margaret Richmond Fess, Buffalo, New York, 1956.

[3] The Buffalo Public Library 1836—1936, Arthur Goldberg, privately printed, Buffalo, New York, 1937.

Library, the direct descendant of the Young Men's Association. Its conversion to a publicly supported institution was marked by large appropriations; the library's holdings increased by almost 20% in its first year as the Buffalo Public Library.

With the Grosvenor as a rich non-circulating research collection and the Buffalo Public Library introducing many important innovations in the field of circulating library service, notably in close association and cooperation with the Buffalo public schools, Buffalo was more imaginatively served than most communities.

In 1947 the Erie County Public Library was established and for the following several years continuously closer relations among the Buffalo Public, the Grosvenor and the Erie County Public Library presaged the eventual merger of the three on July 1, 1954. The merged holdings provided a solid base for the further development of BECPL. Strong collections, particularly in history, music and the sciences, have been maintained and further enhanced.

Itself the result of an unusual degree of cooperation among three independent institutions, BECPL has continued to display this spirit to an extraordinary extent. As a large urban library it has had to meet expanded school and college pressures. But beyond the "student problem" it has also undertaken to serve reference and research needs of graduate and faculty members of the academic community as well as the industrial, scientific and commercial business community in the entire Western New York region. Its departmental interlibrary loan records for 11 months in 1965 are shown in Table 1 as well as the departmental totals for the complete year 1964.

The bulk of interlibrary loans is made by the music and science departments. The count of the music departments represents pieces rather than titles. As it includes instrumental parts, the title or "loan request" count would be much less. The two main borrowers are the Philharmonic Orchestra and The University at Buffalo.

Industrial libraries are by far the major borrowers from the science department. A record maintained for the first 11 months of 1965 showed that the 2,270 loans made direct by the science department went to 58 industrial borrowers, five city or county agencies, four colleges and universities, and three federal agencies. The ten

Table 1

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY
EXCLUDING BRANCHES
INTERLIBRARY LOANS MADE BY DEPARTMENTS

Month (1965)	Business and Labor	Education	General Information	History	Literature	Music	Science	Total
January	2	22	9	13	6	1,036	232	1,320
February	15	17	11	30	4	1,404	219	1,700
March	27	23	10	21	6	777	263	1,127
April	21	13	8	8	29	417	201	697
May	8	15	1	8	3	364	208	607
June	21	23	6	8	4	464	222	748
July	21	13	8	20	3	91	174	330
August	31	26	10	28	4	185	196	480
September	20	24	7	10	4	1,758	166	1,989
October	18	11	5	20	7	593	185	839
November	16	11	8	14	4	1,061	204	1,318
Total	200	198	83	180	74	8,150	2,270	11,155
Total Year (1964)	135	173	108	216	190	11,355	2,306	14,483

heaviest borrowers of science material and the number of loans recorded for each in the 11 month period are shown below:

Borrower	Loans Made
Cornell Aeronautical Laboratories	593
Bill Aerosystems Co.	225
Roswell Park	220
Linde Division (Union Carbide Corp.)	213
Westinghouse Electric Corp.	80
E.I. duPont de Nemours & Co.	63
Spencer-Kellogg Division (Textron)	60
Harrison Radiator Division (General Motors)	59
Sylvania Electronic Systems (G. T. & E.)	52
Worthington Corp.	50

In addition to loans made directly by departments, 742 loans were made by the intraloan department in the January to November 1965 period, in response to mail or teletype requests. The major borrower through the intraloan department was The University at Buffalo. Other SUNY institutions and public library systems were also heavy borrowers.

In addition to interlibrary loans, it is estimated by the library that BECPL answers many thousands of reference questions by telephone and on the premises.

Of particular interest for this study is the growing cooperation with The University at Buffalo, most markedly since that institution became part of The State University of New York. In 1962 the BECPL Board of Trustees authorized the transfer to the university on permanent loan approximately 20,000 medical books and periodicals from the Grosvenor collection. While the university's own acquisitions plans should relieve the BECPL of some pressures, especially at the undergraduate level, it is foreseen that the university will continue to rely on BECPL in certain areas such as music and the arts and for certain American history material. BECPL is rapidly converting its catalog to LC, a further convenience in its relations with the university.

Of special value to the business community are the expensive business services which BECPL has and will continue to maintain, and the patent holdings. BECPL sees its future task as continuing to provide skilled reference service to the business and other special interest communities while building up the public library holdings in the branches and contract libraries under its administration.

To maximize the title count of its acquisitions in order to provide as broad and deep a collection as possible, it will find itself restricting the procurement of multiple copies. An inevitable consequence of this will be the limiting, in due course, of service to students at the undergraduate level. Projections in Chapter III suggest that the colleges will themselves be in a better position to meet these needs.

PART 2: THE LIBRARY SYSTEMS

The public library services in the six counties are channeled almost wholly through the three public library systems: Chautauqua-Cattaraugus; Nioga, which includes Niagara, Orleans, and Genesee counties; and Buffalo-Erie. [1] One public library in Genesee County and one in Niagara are not members of the Nioga System.

Chautauqua-Cattaraugus

The Chautauqua-Cattaraugus Library System serves a population of 225,564; the system's total holdings are 406,429. The largest collection in the area is at Jamestown, where 95,326 items are held. The second largest collection in the area is at Olean, with holdings of 66,676. Four other libraries in the area have holdings of over 20,000.

The Chautauqua-Cattaraugus Library System center at Jamestown is seldom called upon by colleges in the area, although college students do make use of the James Prendergast Free Library in Jamestown and the Olean Public Library in Olean, the co-central libraries of the system. The main thrust of the system now is to improve services to juniors and seniors in high school.

Nioga

The Nioga System serves a slightly larger population than that served by Chautauqua-Cattaraugus, according to the 1960 census,

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[1] Source of data on the systems: Public and Association Library Statistics/1964, The University of the State of New York, The State Education Department, Albany, New York.

288,619. Total holdings of libraries in the system are 450,490. The largest collection is at Niagara Falls, 191,176, with the second largest collection at Lockport, where holdings total 57,132. Two relatively large libraries in the Niagara-Orleans-Genesee area are not members of the system. These are the libraries at North Tonowanda, with holdings of 58,091 and at LeRoy, in Genesee County, with 42,833 holdings. Except for one library in the Nioga System with holdings of just over 44,000, no public library in the three counties has holdings as large as 20,000.

The co-central libraries of the system are the Niagara Falls Public Library and the Lockport Public Library. The system provides processing services to the libraries at Niagara University and Niagara Community College, but there is very little interlibrary loan with the two colleges. There is a good deal of service to the Niagara County Community College, but little demand from students of Niagara College. There are no colleges in either Genesee or Orleans counties. A number of the larger industries in the Niagara area maintain company libraries; the public library system has relatively little demand from these industries.

Buffalo-Erie

The Buffalo-Erie County system serves the majority of the population and has by far the largest public library holdings in the six-county area, a population of 1,064,688, with total holdings of 2,522,129. Collections in Buffalo city libraries total 1,988,500, including branches, serving a population of 1,064,688. The next largest holding in the system is at Kenmore, with total holdings of 118,576; the population served in Kenmore is 105,032. Several other libraries in the Buffalo-Erie County Public Library System have holdings in excess of 20,000.

Chapter II

INSTITUTIONS OF HIGHER EDUCATION IN THE SIX-COUNTY AREA AND THEIR LIBRARIES

PART 1: THE UNIVERSITY AT BUFFALO

The Library as a Major University Resource

Identification of the library's strength is necessary, for the purposes of the current study, in order to determine the role it may play in a regional reference and research library resources program. The presentation given here, which restricts itself to an assessment of the library from a limited point of view, may therefore appear indifferent to the most important reason for the library's development. The university library's *raison d'etre* is not to provide a regional research library resource for the non-university community. For the university the primary goal is to achieve excellence in the educational opportunities afforded to its own community. The library represents the key to that achievement; it is an important factor in the recruitment of faculty of outstanding merit and, as an inevitable corollary, in the quality of the teaching. Particularly at the graduate level for both faculty and research students the relevance and depth of the collection may determine whether or not they choose to work or study at Buffalo.[1]

It is clearly not a function of this study to evaluate the library or the library's program in terms of its academic purpose. Failure to discuss this primary role of the library at the length it deserves follows from a strict interpretation of the terms of reference of this study.

Enrollment Forecasts

The projection of the university's academic program is discussed below in order to provide estimates of the numbers of students and of faculty whose needs will have to be met at both reference and research levels in each of the disciplines. The 1970 projection is also required in order to estimate the funds which would be available under the 3 R's formula.

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[1] One professor supervising graduate work at the university has pointed out that as much as one-half of the two-thirds of the material used in certain subject areas by his students is obtained on interlibrary loan.

Table 2 gives by department the 1964 enrollment figures at the main campus[1] other than in the Health Sciences, and the estimated enrollments for 1970 and 1974 in the departments which will eventually be housed on the North Campus. For the Health Sciences enrollments the figures for all three dates, including 1964, are projections. Thus there is a minor inconsistency in the table in that the actual number of South Campus, i.e., Health Sciences students, carrying a substantial part of their study load on the "North Campus" in 1964 is slightly in excess of the enrollment projected in the Health Sciences for that year.[2]

It is important to note that since this table is intended to provide some indication of the demand for library services, the numbers refer to bodies rather than to full-time equivalent enrollments.

The table shows an increase of 69.0% in enrollment in those departments which will be housed on the North Campus; the corresponding increase in enrollment for students in the Health Sciences is 95.1%. An increase of 28.3% is projected for enrollments at the Millard Fillmore College.

The table also shows—which may be more important in relation to the library's development—the wide variations in expansion projected as among different divisions and, within divisions, between graduate and undergraduate or first level professional enrollment. At one extreme, graduate student enrollment at the University Health Center is projected to increase by 258.8%; at the other extreme, graduate enrollment in the School of Education is projected to decline by 34.2%, total enrollment in the School of Education to decline by 8.4%. Except for the School of Education, and the School of Social Welfare where the projected increase is only 5.3%, projected graduate enrollment increases exceed 100% in all divisions.

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[1] For simplicity in presentation those departments which will move to the North Campus when it is ready are shown as on the North Campus at all three dates; the Health Sciences are shown as alone at the South Campus on all three dates.

[2] When the new campus has been completed in 1970, the present South Campus will become the home of the Health Sciences; all other disciplines will be housed on the new campus.

It should be noted that the university faculties in the Health Sciences are also involved in supervising graduate professional students (interns and residents, and candidates for the Master's Degree in Nursing) in the Health Center and in affiliated hospitals. In 1965 there were more than 100 such internships in seven programs and 351 residencies in 28 programs. Other sections of the university's plans in the Health Sciences point to the inevitable expansion of these programs, but no estimates as to numbers involved are projected. At any rate, they will represent several hundred potential library users at the South Campus in addition to the student enrollment indicated.

Faculty Growth

The university's Ten Year Academic Plan, from which Table 2 is derived, does not include corresponding information about the faculty. In order to estimate the faculty to be served by 1974, data from other sources were combined in the preparation of Table 3. The Office of Admissions and Records supplied the figures on full-time faculty, part-time faculty and graduate assistants in all departments in September 1965. Figures for 1974 for all but the Health Sciences Center were derived from staffing projections prepared by the Educational Affairs Division at the university. The Health Sciences figures were abstracted from the Ten Year Academic Plan.

It is important to note that the 1974 projections in the Health Sciences indicate only full-time (not full-time equivalent) faculty; no estimates are included of the part-time faculty or graduate assistants who may be needed. Even with the trend in all medical schools toward a higher percentage of full-time faculty, almost nowhere is it found that a school operates wholly with full-time faculty. In September 1965 with a total of 386 full-time faculty in the Health Sciences schools, there were 577 part-time faculty and 50 graduate assistants. It is probably conservative to assume, therefore, that the total academic staff for the Health Sciences schools in 1974, including part-time faculty and graduate assistants, will be at least 100% above the full-time projection shown. Even ignoring this possibility the total university staff for whom library services will have to be provided as shown in Table 3 will be 3, 184.

The Library in Transition

A full appreciation of the role to be played by the library of The University at Buffalo in a regional program is possible only in terms

Table 2

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO ENROLLMENTS
1964 (actual) — 1970 (estimated) — 1974 (estimated)

Campus and Department	Actual Enrollment 1964			Estimated Enrollment 1970			Estimated Enrollment 1974			Estimated Percentage Increase 1964-1974		
	Undergraduate	Graduate	Total	Undergraduate	Graduate	Total	Undergraduate	Graduate	Total	Undergraduate	Graduate	Total
North Campus												
Arts and Sciences	4,940	1,078	6,018	5,500	1,500	7,000	8,200	3,414	11,614	66.0	216.7	93.0
Business Administration	795	208	1,003	800	350	1,150	1,000	696	1,696	25.8	234.6	- 8.4
Education	515	1,462	1,977	550	1,600	2,150	650	962	1,612	26.2	- 34.2	101.3
Engineering	907	448	1,355	1,000	600	1,600	1,800	928	2,728	98.5	107.1	14.4
University College	306	—	306	300	—	300	350	—	350	14.4	—	
Professional Programs												
Law	—	258	258	—	400	400	—	580	580	—	124.8	124.8
Social Welfare	—	209	209	—	210	210	—	220	220	—	5.3	5.3
North Campus Enrollment	7,463	3,663	11,126	8,150	4,660	12,810	12,000	6,800	[illegible]8,800	60.8	85.6	69.0
Plus South Campus Students[a]	1,350	228	1,578	1,300	449	1,749	1,300	714	2,014	- 3.7	213.2	27.6
TOTAL Students Using North Campus	8,813	3,891	12,704	9,450	5,109	14,559	13,300	7,514	20,814	50.9	93.1	63.8
Millard Fillmore College (evening and extension credit program)	5,845	—	5,845	6,000	—	. 6,000	7,500	—	7,500	28.3	—	28.3
University Health Center	Professional	Graduate	Total	Professional	Graduate	Total	Professional	Graduate	Total	Professional	Graduate	Total
Dentistry	300		300	300		300	450		450	50.0		50.0
Health Related Professions	172		172	172		172	275		275	59.9		59.9
Medicine	400		400	400		400	600		600	50.0		50.0
Nursing	255		255	255		255	450		450	76.5		76.5
Pharmacy	150		150	200		200	390		390	160.0		160.0
Graduate Students[b]		199	199		386	386		714	714		258.8	258.8
TOTAL Health Sciences	1,277	199	1,476	1,327	386	1,713	2,165	714	2,879	69.5	258.8	95.1

[a] Nursing, Pharmacy, Para-Medical students at professional level and all health sciences students at graduate level carrying substantial parts of their load on North Campus after 1970, now carrying substantial parts of their load at the university's main campus.

[b] Not distributed according to profession in source document.

Source: Ten Year Academic Plan, State University of New York at Buffalo, October 21, 1965.

Table 3

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO FACULTY
September 1965 (actual) — 1974 (projected)

School or Department	Combined Faculty – September 1965				Staffing Projections – 1974		
	Full-Time	Part-Time	Graduate Assistants	Total Faculty	Full-Time	Graduate Assistants	Total
Arts and Sciences	390	39	551	980	864*	730	1,594
Business Administration	43	8	34	85	117	84	201
Education	67	12	63	142	122	86	208
Engineering	72	14	38	124	186	121	307
Law	16	7	—	23	50	—	50
University College	4	2	2	8	4	—	4
Air Science	9	—	—	9	5	—	5
Physical Education, Men	7	—	—	7	12	2	14
Physical Education, Women	9	3	—	12	9	2	11
Social Welfare	22	—	—	22	40	—	40
Millard Fillmore College	—	164	22	186	—	—	—
Totals	639	249	710	1,598	1,409	1,025	2,434
Health Sciences							
Medicine	254	493	—	747	318	—	318
Dentistry	49	54	—	103	225	—	225
Nursing	35	10	3	48	85	—	85
Pharmacy	48	20	47	115	81	—	81
Health Related Professions	—	—	—	—	41	—	41
Totals	386	577	50	1,013	750	—	750

*Approximately 20 of these positions may be converted to graduate assistant positions for English 101-2 instruction.

Sources: 1965 figures from Office of Admissions and Records, The State University of New York at Buffalo; 1974 projections, except Health Sciences figures, from revised staffing projections, Educational Affairs Division, The State University of New York at Buffalo; Health Sciences figures, Ten Year Academic Plan, The State University of New York at Buffalo.

of its plans for the future. Its service function in the academic and the non-academic research community is changing so rapidly that current and past conditions cannot serve as guidelines for medium or long-term planning for a regional program.

The comparative count of the Buffalo and Erie County Public Library and The University at Buffalo library holdings (see Chapter III) suggests some of the areas of current weaknesses, but fails to reflect the dynamism governing the university's present library program.

Until September 1962 The University at Buffalo was a private institution and the library's potential importance has only begun to develop since the integration of the university into the State University of New York. The dynamics of the present situation are suggested by the gross annual acquisitions and total holdings figures over the past several years, as shown in Table 4. As of April 30, 1959 the university library's total holdings were 355,065. The Library Director's annual report for 1964-65 showed total holdings in 1964-65 of 540,778. The library's development plan calls for one million volumes by 1970.

In any large collection the number of volumes can indicate to only a limited extent the worth of a library; the number says nothing about how currently desirable is the material held. At Buffalo, over 35% of the university's current holdings represent acquisitions since 1958-59. By 1970, when the library's interim goal of a million volumes has been reached, approximately two-thirds of the total collection will be unusually current and will have been acquired according to a planned acquisition program.[1]

Development Plans

The development of the library's holdings and services is being planned as an integral part of the development of The University at Buffalo (and, to an evidently increasing extent, of the entire State University complex). Considering the library, therefore, requires an appreciation of the total plan of SUNY at Buffalo. Some particular

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[1] A goal of two million volumes by 1979 has been indicated in one communication. The currency of holdings would, if that goal is achieved, be even more remarkable.

Table 4

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO LIBRARY
SELECTED ANNUAL STATISTICS
1957-58 TO 1964-65

Year	Books Accessioned	Current Periodicals Received	Bound Periodicals Accessioned	Total Holdings
1957-58	4,999	n. a.	1,300[a]	351,162
1958-59	5,020	2,430	2,194	355,065
1959-60	5,738	2,548	2,953	360,894
1960-61	10,145	2,666	3,562	374,184
1961-62	18,279	3,267	3,251	395,654
1962-63	29,971	3,911	4,633	428,258[b]
1963-64	39,571	4,918	6,367	474,196
1964-65	50,504	5,540	16,078	540,778

[a] Excludes count for law and medical-dental libraries.

[b] Does not include 80,347 Atomic Energy Commission reports and micro-cards or 5,319 College of Engineering Experiment Station bulletins.

Source: Annual reports of the Director, The Libraries of the State University of New York at Buffalo.

strengths and deliberate limitations of the library in accordance with this plan must be noted. The acquisitions program will be based on definitions of acquisitions levels. These definitions have been accepted as broad guidelines in building up the collection at The University at Buffalo.[1]

The materials budget for 1965-66 (to March 31, 1966) is $850,000 for books and periodicals, including medical library material, plus $50,000 for binding and a further $134,000 for the law collection. (After 1970 the Health Sciences library will be responsible for its own acquisitioning.) The scheduled acquisition rate is approximately 70,000 titles annually for the next four to five years. Although reference librarians are assisting the regular cataloging staff, the cataloging during this period of heavy acquisition is expected to fall behind acquisitions for perhaps a period of four or five years.

The periodicals program aims to build up back runs at a rate of 20,000 volumes annually. Current subscriptions number 2,400 in the Health Sciences and 4,500 in the general library. An additional 1,500 current subscriptions are programmed for the general library.

The Health Sciences library will remain on the South Campus. The medical school will be one of four in The State University of New York. A program has already been initiated for the coordinated use of the medical school's library resources at the four institutions, using advanced computer techniques. The Health Sciences library at the university is to be developed to meet the needs of the expanded Buffalo University Health Sciences program; but even beyond the South Campus collection, ready access to the total medical library resources of the State University will be provided for.

At the North Campus the library program will be linked to the academic programs undertaken there. In certain subject areas materials will therefore be acquisitioned only to a limited research collection (Level II) if no program in the subject is offered at the graduate level or even to a general reference collection (Level I). A Level II collection, according to the acquisitions guidelines, would comprehend "material normally found in the well-supported undergraduate library."

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[1] References throughout this section to levels of service are explained in Appendix A.

Comprehensive research collections (Level III) would be built up in those areas where graduate research programs had been approved.

Even such collections, however, may be "comprehensive" in a very restricted sense. One example, the law library, will help to illustrate how this will occur. The Law School has made a cogent case for its education program and in support of the enrollment projections given in its seven-year plan.[1] The program envisaged relies heavily on individualized instruction and small-group and tutorial programs.

In the past the law library was by all accounts inadequate. Until last year there were not available (in any library in Buffalo) copies of some of the major law reviews. Holdings are variously estimated today as between 50,000 and 60,000 volumes. The collection's growth as reflected in the university's total library statistics since 1958 has been uneven, as shown below:

Year	Holdings
1958-59	31,915
1959-60	33,751
1960-61	34,933
1961-62	35,954
1962-63	38,893
1963-64	45,000
1964-65	48,000

The Law School has been able to function with so restricted a collection partly because of availability of material at the courthouse library directly opposite the school, plus heavy reliance on inter-library loans from the collections of other law schools, two of which have "served the Buffalo Law Library as if it were a branch of their own."[2] The goal of the Law School's seven-year plan is 250,000 volumes by 1972, as the base from which to build further to a collection of 400,000 volumes. If achieved, these goals would only make Buffalo's holdings comparable in numbers to those at good midwestern state law schools.

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[1] SUNY Law School Seven-Year Plan (1966-1973), Buffalo, April 1965.

[2] Ibid.

Ambitious as is this program, it does not aim to cover all areas in the field of law. The acquisitions policy at the law library, as for other parts of the university's libraries is to relate library holdings specifically to academic programs. The Law School proposes to limit the areas in which it will teach, with heavy concentration in the field of state and local government law.[1] Acquisitions will, therefore, be restricted primarily to Anglo-American plus Western European material. The collection, as foreseen at this point, will ignore the whole of Latin American law, the whole of Asia except India and Pakistan, and perhaps the whole of the Eastern European countries. Though some English language material on Africa is being collected, this is not conceived of as covering the law in Africa.

The 250,000 volumes would clearly represent a major resource in the region, for law students, faculty, members of the profession, and as reference material for other legitimate users in the community. It will not, however, provide the kind of interdisciplinary research material such as might be needed, for example, in support of Latin America area studies, or Asia area studies in the graduate schools of the university. Thus, though a Level III collection, it will in fact cover a defined and strictly limited area.

Similar limitations in other disciplines, planned rather than haphazard, will help in the identification of the areas covered in the collection, and will simplify the formulation and coordination of subsequent academic and library planning. Some unique material, such as the James Joyce and Dylan Thomas memorabilia, makes parts of the university's collection of more than regional interest. The significance of such material for a regional resources program, however, lies in the probable developments in graduate English programs with the consequent impact on the further library growth.

As indicated earlier, the university plans to provide Level II collections to meet the library needs of its undergraduate students; collections to Level III will be developed in all areas in which graduate programs are approved. The gross graduate enrollment projections in Table 2 do not identify the specific graduate programs for which, in accordance with its development plan, the university library will be collecting to Level III. Listed below are some such specific areas in which new programs are already being planned:

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[1] Other interesting elements of the Law School plan must be bypassed, as the above is sufficient to illustrate the implication for library development. It is understood that the Law School at Buffalo is to be the only one in the State University complex.

in Chemistry - biophysical chemistry, crystallography, high temperature reactions;

in English - literary theory;

in History - the British Commonwealth, Russia and Eastern Europe, the Far East;

in Modern Languages - Italian, Portugese, and "Brazilian,"[1] Slavic languages and literatures, an Asiatic and a Near Eastern language;

in Philosophy - comparative philosophy;

in Sociology - criminology, arts and languages;

in Engineering - bi-engineering, electrical engineering, industrial engineering, nuclear engineering (for labor consideration: man-machine systems engineering, environment at control engineering);

in Bacteriology - transplantation, immunogenetics; and

in Biophysics - communication and control, energy transfer.

The planned development of Level III collections in these graduate program areas will represent a research resource of major significance in the region. It is foreseen too that the university's primary commitment to graduate instruction and research may lead to the development of graduate programs in many other subject areas ranging from American Studies and Mathematical Logic to Computer Sciences and Museum Management.

The establishment of a library school planned for the near future may have little significance in terms of resource materials for the library's total effectiveness in a regional network. On the other hand, a proposal for the establishment of a fine arts school to include a graduate school of architecture, for example, implies the establishment of a Level III collection in that subject area. Within the region such a collection might be unique and provide access to material in a previously uncovered area. Approval of each such graduate area program will, it is presumed, be linked to parallel subject area development in the library. It is already the practice for the library to be consulted regarding the resources in a specific area when a new graduate program is considered.

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[1] Portugese as used in Brazil.

The need to build strengths over so wide a range of subject areas precludes the possibility that all areas will be equally well covered within the near future. The comparative count of the holdings of Buffalo University Library and BECPL (Chapter IV) suggests that some areas, e.g., American History, The University at Buffalo students will continue to rely heavily on BECPL for at least the next few years. However, this can only provide a short-term solution; with the move to the North Campus it is assumed by library staff that it would hardly be possible to serve undergraduate and faculty needs in, for example, so broad an area as American History by reliance on BECPL.

In summary, The University at Buffalo library, inadequate in the past to meet the needs of its own constituency, is undertaking a massive development program linked directly to the university's academic development program. Many of the graduate programs to be offered will be the only ones of their kind among the few universities in the region offering graduate instruction, e.g., Medicine, Law, etc. The university's library will therefore be, in some areas, not only the primary resource but the only one in an academic institution.

PART 2: INSTITUTIONS OF HIGHER EDUCATION —AN OVERVIEW

There are 19 institutions of higher education in the six counties. Of these, eight which offer baccalaureate or higher degrees are open to lay students. One other offering the baccalaureate is a teachers college for religious only. There are three other theological or religious schools in the area below the baccalaureate level, and a further seven community colleges or junior colleges.

These institutions are located primarily in Buffalo or its immediate vicinity. None is in either Genesee or Orleans County; one, St. Bonaventure, is in Cattaraugus at the southeastern corner of the six-county area; two, SUNY College at Fredonia and Jamestown Community College, are in Chautauqua County; two, Niagara University and Niagara County Community College, are in Niagara County. The other 14 are in Erie County.

Table 5 lists all the colleges and shows the Fall 1964 enrollments either as reported in The State Education Department publication, College and University Enrollment—Fall 1964, or from one other source as indicated. This and the subsequent tables help to show the relative importance of the library resources available and the library needs which may be anticipated.

The figures in Table 5 show that in Fall 1965, 42.3% of all students at the undergraduate level (including community and junior colleges) were enrolled at The University at Buffalo. The three SUNY institutions together enrolled 63.8% of all undergraduates. The three public community colleges were responsible for 11% of all undergraduate enrollment, so that approximately 75% of undergraduate enrollment at institutions in the six counties was in publicly supported schools and colleges. The implications of these figures are discussed in the section on findings and recommendations.

Table 6 shows, for the nine institutions granting baccalaureate or higher degrees, the number of degrees granted in 1962-63—the latest date for which the data were available. The degrees granted are distributed according to class of degree: four-year bachelor and first degree, first professional requiring five years or more, second level degrees, and doctorates. Although the three SUNY institutions together are again shown as most important, granting 64.9% of all degrees, the importance of some of the private institutions is suggested. At the post-baccalaureate level, 73.8% of students enrolled were at The University at Buffalo; for the three SUNY institutions the figure was 83.0%. Canisius College conferred 17.2%, Niagara University 8.4%, and St. Bonaventure 6.0% of degrees at the second level; St. Bonaventure also granted three degrees at the doctorate level, the other 37 at this level having been granted by The University at Buffalo.

An indicator to academic demand for library facilities at the research level is the distribution of faculties among the various institutions. Table 7 summarizes this information as of 1963, limited to the faculties at the nine institutions offering baccalaureate or higher degrees. All the institutions other than SUNY College at Buffalo, which had reported only full-time faculty, had indicated the number of part-time

ENROLLMENT IN INSTITUTIONS OF HIGHER EDUCATION IN SIX-COUNTY AREA
BUFFALO-NIAGARA REGION, FALL 1964

INSTITUTION	UNDERGRADUATE			POSTGRADUATE — Including First Professional Degree			Others Enrolled for Credit	Grand Total
	Full-Time	Part-Time	Total	Full-Time	Part-Time	Total		
Buffalo Bible Institute	12	5	17	—	—	—	58	75
Canisius College	1,588	515	2,103	25	376	401	396	2,900
D'Youville College	753	94	847	—	—	—	53	900
Mt. St. Joseph's Teachers College	99	283	382	—	110	110	—	492
Niagara University	1,558	52	1,610	58	87	145	265	2,020
Rosary Hill College	942	47	989	—	—	—	38	1,027
St. Bonaventure University	1,619	143	1,762	39	155	194	214	2,170
St. John Vianney Seminary	62	—	62	48	—	48	50	160
SUNY at Buffalo	8,140	5,404	13,544	1,828	2,075	3,903	1,424	18,871
SUNY College at Buffalo	4,556	170	4,726	28	239	267	854	5,847
SUNY College at Fredonia	2,098	37	2,135	5	214	219	107	2,461
Two-Year Colleges and Other Institutions Classified as Junior Colleges								
Buffalo Diocesan Seminary	93	—	93	—	—	—	—	93
Erie County Technical Institute	1,949	20	1,969	—	—	—	—	1,969
Immaculata Junior College	71	15	86	—	—	—	1	87
Jamestown Community College	546	152	698	—	—	—	440	1,138
Niagara Community College	821	12	833	—	—	—	672	1,505
St. Clare Junior College	13	19	32	—	—	—	4	36
Sancta Maria Junior College	17	22	39	—	—	—	4	43
Villa Maria Junior College*	48	22	70	—	—	—	2	72
Totals	24,985	7,012	31,997	2,031	3,256	5,287	4,582	41,866

*As of October 1962, American Junior Colleges, 6th Edition, American Council on Education, Washington, D. C., September 1963.

Source: College and University Enrollment—Fall 1964, The University of the State of New York, The SED, Bureau of Statistical Services, Albany, New York, July 1965.

Table 6

EARNED DEGREES CONFERRED BY NINE SELECTED INSTITUTIONS OF HIGHER EDUCATION IN THE SIX-COUNTY AREA, BUFFALO-NIAGARA REGION
1962-1963

Institution	Four-Year Bachelor and First Professional		First Professional Requiring Five Years Or More		Second Level		Doctorate		Total Degrees Granted	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Canisius College	251	8.4	—	—	123	17.2	—	—	374	9.5
D'Youville College	159	5.3	—	—	—	—	—	—	159	4.0
Mt. St. Joseph's Teachers College	64	2.2	—	—	10	1.4	—	—	74	1.9
Niagara University	250	8.4	—	—	60	8.4	—	—	310	7.9
Rosary Hill College	143	4.8	—	—	—	—	—	—	143	3.6
St. Bonaventure University	278	9.3	—	—	43	6.0	3	7.5	324	8.2
SUNY at Buffalo	863	29.0	209	100.0	197	27.6	37	92.5	1,306	33.2
SUNY College at Buffalo	732	24.6	—	—	248	34.7	—	—	980	24.8
SUNY College at Fredonia	235	7.9	—	—	33	4.6	—	—	268	6.8
Totals	2,975	100.0	209	100.0	714	100.0	40	100.0	3,938	100.0

Source: Earned Degrees Conferred 1962-1963 Bachelor's and Higher Degrees, U. S. Department of Health, Education, and Welfare, Washington, D. C. . 1965.

Table 7

FACULTIES AT SELECTED INSTITUTIONS, BUFFALO-NIAGARA REGION
1963

Institution	Faculty				Total Faculty Reported	Percent of Total Faculties
	Full-Time		Part-Time			
	No.	%	No.	%		
Canisius College	97	63.0	57	37.0	154	5.0
D'Youville College	48	64.0	27	36.0	75	2.4
Mt. St. Joseph's Teachers College	14	45.2	17	54.8	31	1.0
Niagara University	18	60.0	12	40.0	30	1.0
Rosary Hill College	49	70.0	21	30.0	70	2.3
St. Bonaventure University	167	91.3	16	8.7	183	5.9
SUNY at Buffalo	667	31.3	1,466	68.7	2,133	69.3
SUNY College at Buffalo	259	—*	—	—	259	8.4
SUNY College at Fredonia	138	97.2	4	2.8	142	4.6
Totals	1,457	47.4	1,620	52.6	3,077	100.0

* Only full-time faculty reported.

Source: American Universities and Colleges, Ninth Edition 1964, American Council on Education, Washington, D.C., 1964.

faculty as well; the table shows the totals for each institution and the figures for part-time and full-time faculty separately.

It is important to note that whereas for other university administrative or planning purposes conversion to full-time equivalents may be illuminating, for the purposes of this analysis such a conversion would not be meaningful. Faculty library needs are more a function of the subject taught than of whether a faculty member is engaged for full-time or part-time duty. It is appreciated too that some part-time faculty, especially at institutions offering graduate studies, may also appear in the enrollment figures, but this probable overlap is not important for the purposes of this analysis.

The ratios between full-time and part-time faculty show little similarity among the colleges. As with enrollment and degrees conferred, The University at Buffalo has by far the highest number—69.3% of all faculty members—the three SUNY institutions together approximately 80%.

The strengths of the respective libraries are summarized in gross terms in Table 8 which shows only total volumes reported in the year 1963-1964 and the number of periodicals then being received. Seven of the nine institutions offering four-year degrees had holdings in excess of 50,000 volumes, the basic minimum recommended in the ALA Standards for College Libraries. SUNY at Buffalo had by far both the largest collection and the greatest number of periodicals then being received, with St. Bonaventure University having the next largest collection and Canisius the next largest number of periodicals currently being received.

Projections

The foregoing tables sketch a profile of each of the institutions and of the academic community in the recent past. A roughly comparable profile for the future is supplied by each institution's own plans and forecasts. Questionnaires were sent to each institution which had an enrollment in excess of 500 in Fall 1964 asking for data on current and projected enrollments, faculty and library holdings and facilities. Replies were received from seven institutions; the data are discussed below. The limited sample can give an indication of trends at only the institutions which replied. No comparisons are made directly parallel to those discussed earlier in this chapter covering all the institutions. To give an indication of the scale of the changes projected among these colleges, some of the information has been summarized in Table 9.

Table 8

LIBRARY HOLDINGS IN INSTITUTIONS OF HIGHER EDUCATION IN SIX-COUNTY AREA, BUFFALO-NIAGARA REGION
1963-1964

Institution	Volumes Held	Periodicals Being Received
Buffalo Bible Institute	13,775 [a]	n. r. [d]
Canisius College	101,061	956
D'Youville College	54,575	430
Mt. St. Joseph's Teachers College	38,300	210
Niagara University	65,000 [b]	537 [b]
Rosary Hill College	43,103	434
St. Bonaventure University	119,654	847
St. John Vianney Seminary	16,788	277
SUNY at Buffalo	474,196 [c]	4,918 [c]
SUNY College at Buffalo	110,113 [a]	n. r. [d]
SUNY College at Fredonia	66,116	700
Buffalo Diocesan Seminary	10,000 [b]	35 [b]
Erie County Technical Institute	19,111 [b]	320 [b]
Immaculata Junior College	10,730	97
Jamestown Community College	21,927	118
Niagara Community College	n. r. [d]	n. r. [d]
St. Clare Junior College	3,839	82
Sancta Maria Junior College	7,689 [a]	34 [b]
Villa Maria	11,442 [b]	209 [b]

a American Library Directory, 24th Edition, R.R. Bowker Company, New York, 1964.

b American Junior Colleges, 6th Edition, American Council on Education, Washington, D.C., September 1963, figures as of October 1962.

c Annual Report 1963/64, Oscar A. Silverman, Director, The libraries of The State University of New York at Buffalo.

d Not reported.

Source: Library Statistics of Colleges and Universities 1963-64, United States Department of Health, Education, and Welfare, Washington, D.C., 1965.

Table 9

PROJECTIONS OF SELECTED DATA FROM SEVEN SELECTED COLLEGES
BUFFALO-NIAGARA REGION
1970, 1975
(Indexed—1965 = 100)

Factors Indexed		Canisius College	D'Youville College	Niagara University	Rosary Hill College	St. Bonaventure University	SUNY College at Buffalo	SUNY College at Fredonia
Enrollment								
Total Undergraduate	1970	124	119	n. a.	132	119	155	125
	1975	150	143	n. a.	148	141	154	n. a.
Total Postgraduate	1970	142	—	n. a.	—	118	194*	146
	1975	167	—	n. a.	—	137	241*	n. a.
Faculty	1970	124	118	n. a.	110	114	177*	n. a.
	1975	145	131	n. a.	122	131	183*	n. a.
Library Holdings	1970	136	131	174	166	126	250	225
	1975	182	175	218	220	149	409	325
Current Serial Titles	1970	120	130	136	107	133	153	180
	1975	150	160	204	118	166	173	236
Ratio of Students to Student Places	1965	7.3	4.3	3.4	12.5	8.6	10.9	27.2
	1970	9.4	2.9	n. a.	4.9	5.0	4.3	4.6
	1975	5.3	2.5	n. a.	2.2	4.3	4.4	n. a.

* Base year in terms of total enrollment; 1970, 1975 = full-time equivalent.

For the purpose of this illustration the actual numbers are not used. The table shows the changes projected for a number of important factors in terms of percentage increases. Taking the 1965 figures as the base, 1970 and 1975 projections are then shown as an index of the base year, for undergraduate and graduate enrollments, faculty, library holdings and serial title subscriptions. For example, at Canisius College undergraduate enrollment projected for 1970 is 124% of actual enrollment in 1965; the 1975 projected enrollment is 150% of 1965 enrollment. Faculty projections are correspondingly converted to a percentage of 1965 faculty figures, and so on for the other indexes. The ratio of students to student places in the college or university library in 1965 and, on the basis of the institution's own projections, in 1970 and 1975 was calculated on the totals of undergraduate and postgraduate students.

At SUNY College at Buffalo the 1970 and 1975 indexes for postgraduate students and faculty may be understatements, as the 1965 figures on which the index was based referred to students enrolled whereas the projections were made in terms of full-time equivalents.

In general the indexes suggest a slightly greater projected improvement in library facilities than would be directly proportionate to the projected increase in enrollment. In all cases the ratio of students to student places in the libraries is markedly better. Library holdings indexes are somewhat above the enrollment indexes, but those for current serial titles received do not show as great a projected improvement in the period. Faculty projections indexes in almost all instances do not show staff increases commensurate with the increased enrollments projected.

Another analysis (not tabulated here) showed that part-time students are projected to increase at a faster rate than full-time students, but the part-time totals,where indicated, were small and their numbers are merged in the totals from which the indexes derive. Table 10 shows the projected distribution between resident and commuter students. Canisius and Rosary Hill show an increase in the ratio of resident students; St. Bonaventure shows very little shift in the ratio. SUNY College at Buffalo, showing projections in terms of full-time equivalents, showed a small increase in the resident student ratio which might be reversed if the calculation were made in terms of actual student enrollments.

Achievement of a basically adequate collection at each college would contribute significantly to the workability of a regional program.

Table 10

RESIDENT AND COMMUTING ENROLLMENT IN SEVEN SELECTED COLLEGES, BUFFALO-NIAGARA REGION

1965 (Actual), 1970, 1975 (Projected)

Institution	In Residence			Commuting		
	1965	1970	1975	1965	1970	1975
Canisius College	350	850	1,150	2,857	2,900	3,350
D'Youville College	400	500	n. a.	400	500	n. a.
Niagara University	900	n. a.	n. a.	1,214	n. a.	n. a.
Rosary Hill College	415	646	750	572	629	650
St. Bonaventure University	1,795	2,125	2,450	658	800	1,000
SUNY College at Buffalo	1,921	3,500	3,500	3,180	5,100*	5,200*
SUNY College at Fredonia	1,758	n. a.	n. a.	547	n. a.	n. a.
Totals	6,639	7,621	7,850	7,944	9,929	10,200

* Full-time equivalent.

Table 11 summarizes the adequacy of the libraries at the respective colleges in 1965 according to ALA standards. It also assesses the projected 1970 and 1975 holdings according to the same standards. For the purpose of determining what holdings would be required to meet ALA standards, part-time students were converted 2:1 FTE enrollment. This probably overstated the FTE, thereby inflating the number of volumes required to meet ALA standards, especially in 1970 and 1975. The table shows one of the six libraries meeting ALA standards in 1965 and two others achieving ALA standards by 1970. By 1975 all five libraries for which the necessary data were available will according to these projections have achieved ALA standards. SUNY College at Buffalo is shown at 98.9% of ALA standards, based on the cumulative rate of 10,000 volumes per each 200 additional students but the ALA standard[1] suggests that once 300,000 volumes is reached the rate of growth may slow down; the collection in this library is projected to be 450,000.

Dissatisfaction with the simple student-multiple criterion of college library adequacy is widespread. A formula recently suggested by Clapp and Jordan[2] was applied to the projected data; Table 12 presents the outcome. The Clapp/Jordan formula also isolates periodical holdings and these are shown in the table as well. A potentially important bias is introduced in the calculations since no projections have been made of the new undergraduate subject major areas or graduate areas which will have been introduced into the curriculum by 1975, and no estimate has been made of the number of students in honors or independent study programs.

A comparison of Tables 11 and 12 shows that the alternative criteria result in somewhat different evaluations of the libraries. Apparently, at an enrollment of approximately 1,200 students, a normal faculty population, and no graduate programs, the two formulas begin to approach each other. Below that enrollment the Clapp/Jordan standard is higher; above that enrollment the determining factor is the number of fields of graduate concentration, particularly of doctoral or equivalent work offered.

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[1] ALA Standards for College Libraries, The Association of College and Research Libraries, Chicago, 1959.

[2] Quantitative Criteria for Adequacy of Academic Library Collections, Verner W. Clapp and Robert T. Jordan, College and Research Libraries, Vol. 26, No. 5, September 1965.

Table 11

LIBRARY HOLDINGS AND PROJECTIONS AT SEVEN SELECTED COLLEGES BUFFALO-NIAGARA REGION COMPARED TO ALA STANDARDS[a] 1965 (Actual), 1970, 1975 (Projected)

College or University	Actual - October 1965			Projected - 1970			Projected - 1975		
	Holdings	ALA Standard	Percent of ALA Standard	Holdings	ALA Standard	Percent of ALA Standard	Holdings	ALA Standard	Percent of ALA Standard
Canisius College	110,000	135,900	81.7	150,000	166,250	90.2	200,000	195,000	Above Standard
D'Youville College	57,000	64,900	87.8	75,000	73,250	Above Standard	100,000	83,350	Above Standard
Niagara University	68,821	120,000	57.4	120,000	b	b	150,000	b	b
Rosary Hill College	45,379	70,800	64.1	75,400	86,250	87.4	100,000	93,750	Above Standard
St. Bonaventure University	151,000	132,500	Above Standard	190,000	152,500	Above Standard	225,000	175,000	Above Standard
SUNY									
College at Buffalo	110,000	284,600	38.7	275,000	450,000	61.1	450,000	c	98.9
College at Fredonia	80,000	146,050	54.8	180,000	157,400	Above Standard	260,000	b	b

a Part-time enrollments translated as 2:1 full-time equivalent.

b Enrollment projection not available.

c "The rate of growth of the library collection may slow down, however, when the number of volumes reaches approximately 300,000." ALA Standards for College Libraries, The Association of College and Research Libraries, Chicago, Illinois.

Table 12

LIBRARY HOLDINGS AND PROJECTIONS AT SEVEN SELECTED COLLEGES
BUFFALO-NIAGARA REGION
COMPARED TO CLAPP/JORDAN STANDARDS
1965 (Actual), 1970, 1975 (Projected)

College or University	HOLDINGS						PERIODICALS					
	1965		1970		1975		1965		1970		1975	
	Actual	Clapp/ Jordan Standard	Projected	Clapp/ Jordan Standard	Projected	Clapp/ Jordan Standard	Actual	Clapp/ Jordan Standard	Projected	Clapp/ Jordan Standard	Projected	Clapp/ Jordan Standard
Canisius College	110,000	112,206	150,000	122,790	200,000	132,390	1,000	496	1,200	529	1,500	556
D'Youville College	57,000	71,241	75,000	74,745	100,000	78,169	500	344	650	359	800	369
Niagara University	68,821	n.a.	120,000	n.a.	150,000	n.a.	588	n.a.	800	n.a.	1,200	n.a.
Rosary Hill College	45,379	77,577	75,400	82,185	100,000	84,985	390	389	420	398	460	408
St. Bonaventure University	151,000	164,015	190,000	171,315	225,000	186,415	600	715	800	740	1,000	779
SUNY												
College at Buffalo	110,000	190,989	275,000	261,785	450,000	265,385	2,600	822	4,000	1,133	4,500	1,157
College at Fredonia	80,000	126,532	180,000	n.a.	260,000	n.a.	890	552	1,600	n.a.	2,100	n.a.

Source: Quantitative Criteria for Adequacy of Academic Library Collections, Verner W. Clapp and Robert T. Jordan, College and Research Libraries, Vol. 26, No. 5, September 1965.

As regards periodicals, the Clapp/Jordan formula appears to demand less of college libraries than is currently the practice to provide. Only one library shows for any of the three dates holdings or projected holdings of periodicals below the Clapp/Jordan standards.

At any rate, by either the ALA or the Clapp/Jordan standard, the seven libraries in the table give reasonable promise of being adequate for their student needs by 1975. The benefits to be looked for, then, lie in the special strengths the respective libraries could provide for a regional program.

Among the private colleges and universities, the St. Bonaventure library promises to be the largest by 1975. This library is strong in art, in some of the sciences and in classical languages. Its unique contribution to the resources of a regional program is the Vatican Library of Rare Books held by it. Further, its location at the southeastern corner of the region would provide a more convenient source for users in that part of the six-county area than equal or stronger collections less conveniently located.

Canisius College library, a correspondingly strong library among the private institutions, is located in Buffalo and could therefore presumably only supplement the much richer collections in other academic libraries in the city. Identification of its special strengths, most particularly in the sciences, may indicate specific research areas in which it might have esoteric or unique material.

It is evident that the greatest wealth in academic libraries in 1975 will be with the state-supported institutions.[1] As noted in the first part of this chapter, The University at Buffalo will constitute the only resource in certain areas. In a few areas such as education, the projections suggest that whereas at the university the undergraduate and graduate programs in education may prepare fewer students, at other institutions, such as SUNY College at Buffalo, the number of students and the library resources to support expanded programs are expected to increase substantially.

In all areas the SUNY institutions will comprise among them both the largest part of the academic demand in the area and the bulk of academic library resources.

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[1] It is known from other data that none of the institutions which did not reply is expected to alter this fact.

Chapter III

COMPARATIVE STRENGTHS OF BECPL AND SUNY AT BUFFALO COLLECTIONS

This chapter presents and assesses the data on the holdings at the Buffalo and Erie County Public Library (excluding branches) and at the libraries of The University at Buffalo.

A specific directive in this study was to:

> "concentrate initially on assessing the comparative strengths of the libraries of The State University of New York at Buffalo, and the Buffalo and Erie County Public Library (and) weighing the implications of these findings on possible roles these libraries might assume in a regional system. (The scope of the study would not include an assessment of strengths as measured against some objective standard of adequacy for research libraries.)"

It was agreed with the staffs of the two libraries that title count rather than number count was relevant as regards book holdings; and that for periodicals in addition to title count, volumes held would provide some indication as to relative strength, the number of volumes reflecting to some degree the back runs held. The holdings were to be identified only in terms of gross Dewey classification; there was to be no comparison of titles of either books or periodicals or measurement of periodical back runs by title. The implication drawn on possible roles to be played by the two libraries rely on hypotheses and judgments discussed below.

The counts at both libraries were begun in November 1965; final tallies were completed in March 1966. The counts were delayed since they had to be carried out without interference with the normal workload; particularly at the university this presented great difficulties.

After the book title counts had been completed, but before all the periodical counts had been assembled, a meeting was held with the directors of the two libraries to examine the significance of the book title counts and to explore what roles the initial counts suggested for the libraries. These discussions have contributed to the judgements expressed in this report. Appendix Table B-1 reproduces the title count at BECPL.

The Grosvenor collection and the collection of the Buffalo Public Library which were classified according to Dewey are progressively being integrated into the LC catalog at BECPL. It is known that the shelf lists of the separate collections include duplicate titles and a factor has been introduced in the count of the Buffalo Public Library shelf list to compensate for this duplication. At the end of the LC monograph shelf list title count is a list of items not otherwise included in the LC count.

Appendix Table B-2 reproduces the corresponding monograph title count at The University at Buffalo library.

These two more detailed breakdowns permit comparison of title holdings under LC sub-classes, and are necessary for an appreciation of the gaps to be found within any major LC class. To simplify comparison of the libraries' holdings, Appendix Table B-3 summarizes the shelf list counts in Appendix Tables B-1 and B-2, according to major subject classes The titles held at BECPL were almost double those held by the university library. Only in classes K-Law and R-Medicine does the university library hold more titles than BECPL.

Appendix Table B-4 reproduces the periodical count carried out by BECPL. The count was made from the shelves. It shows the number of titles under each LC subject and sub-classification, the number of volumes and the number of reels of microfilmed periodicals. The library has also retained work sheets showing the incidence of long and short runs, which will prove useful when comparing relative strengths in greater detail than in this analysis, and also if coordination of acquisition of back runs is undertaken. A working card which shows the date of the last bound volume is held for each periodical.

The corresponding count for the university's holdings is reproduced in Appendix Table B-5. As with the monograph counts, the detailed count permits comparisons within sub-classes and also draws attention to specific gaps and relative strengths [e.g. Patents (T) at BECPL] in the collections.[1]

Of great interest is the shift in the relative total strengths in periodicals as compared with monograph holdings. The university reports

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[1] In addition to the monograph title and periodical count, The University at Buffalo holds 200,000 microfiche cards of AEC reports, and is one of 50 depositories in the world of the Human Relations Area Files. The Human Relations Area Files comprise 2,000,000 reprints of finely indexes excerpts of material on primitive societies.

7,797 titles, 155,540 volumes and 3,561 microfilm reels plus 900 microcards and 307 boxes of microprint, compared with 4,235 titles, 105,770 volumes and 3,399 reels at BECPL. Thus, whereas the monograph title holdings at BECPL are substantially greater than those at the university, as regards periodicals, the university's holdings are almost 50% greater than those at BECPL. Appendix Table B-6 summarizes the title, volume, and reel holdings at the two libraries according to main LC classification. Juxtaposing the title, volume and reel counts in this way it is possible to see that in two LC areas of relative weakness, LC classes A and C, the university has acquired relatively large numbers of microfilmed periodicals. In two relatively weak areas at BECPL, H and O, that library has supplemented its holdings with microfilmed material, in addition to substantial microfilmed material in T, where BECPL is already strong.

Given the widely discussed and acknowledged importance of periodical literature to the advanced research worker this contrast in relative strengths between monograph holdings and periodical holdings suggests an important factor to be considered when designating possible roles for each of the two libraries in a regional program. In the context of the university's development program it is probable that building up the periodicals collections, particularly back runs, offers less difficulty than achieving comparable growth in the monograph holdings. As indicated elsewhere in this report, the university plans to add annually to the collection 20,000 volumes of periodicals. In 1964-65 over 16,000 bound periodicals were accessioned. A judgement about the respective roles the two libraries might assume in a regional system should, therefore, interpret carefully the holdings counts on other than purely quantitative grounds.

Appendix Table B-7 presents an examination of the counts showing, side by side, the relative strengths of the two libraries. Thus, the first two columns of figures show for the monograph collections which library holds the larger number of titles, and in percentage terms how much larger the number is. For example, BECPL monograph holdings under LC class A equal 155% of the number of titles held by the university's library. Under LC class K-Law the university's title count is equal to 583% of the BECPL title count.

The four subsequent columns show the corresponding percentages for the periodical title counts and the volume counts. No figures are presented for the microfilm reel counts as they are so unevenly dispersed that for most classes for which reels are held the difference in strengths would be nominally "infinite" as only one of the two libraries held any reels (see Appendix Table B-6).

An examination of Appendix Table B-7 illuminates the changing nature of the university libraries and forecasts trends which demand careful evaluation and continuing observation. On the basis of the monograph title count, in only two LC classes, K-Law and R-Medicine, are the university's holdings quantitatively stronger. In one class, Q-Science, the two collections are roughly parallel. However, in comparing the periodical counts, in 12 of the 21 major LC classes the university has higher title counts than BECPL, and in 11 of the classes higher volume counts. Clearly, then, designation of regional reference and/or research level responsibility cannot be based solely on currently apparent relative strengths.

Designation would not necessarily be made by broad LC class. For example, BECPL reports holding 11,996 volumes under T-Patents it reports, however, 138 titles and 3,571 volumes plus 244 reels in the sub-classes TA through TH, where the university library shows 340 periodical titles and 4,965 volumes. The university's academic program is foreseen as approximately doubling at the undergraduate level and more than doubling at the graduate level by 1974. While the monograph title count at BECPL in the sub-classes TA through TH still substantially exceed those at The University at Buffalo both the importance of presently held serial titles and the direction of the university's academic program point to that library's being designated regional research resource after 1970, if not before.

History, in the major LC classes C, D, E and F, presents another broad area where short-term designations would have to be reviewed frequently as the university's collections are developed. At least in the short term, and probably for several years, BECPL will continue to be the major resource in the area with The University at Buffalo students becoming progressively less dependent on BECPL's material as the university collections are developed. BECPL's continuing responsibility as a public library will guide its basic acquisition in these areas.

In L-Education there are sub-areas where the university is far stronger than BECPL, particularly in periodical holdings; however, BECPL has slightly higher monograph title counts. This is, however, a subject area in which several factors must be taken into account when designating the primary regional research resource. First, the professional teachers in the area, unaffiliated to any academic teaching institution, represent a substantial body of library users. Second, other academic institutions in the area, most particularly SUNY College at Buffalo, have major and expanding academic graduate programs in education and project greatly enlarged libraries by 1970 and 1975. Third, although The University at Buffalo has a substantial program in Education, it projects only a small growth in its School of Education at the undergraduate level and an absolute decline at the graduate level.[1]

In B-Philosophy and Religion there are known to be major resources in the private colleges in the area (not identified more specifically for this report) which are more reflective of current thinking and historical materials, particularly in the field of religion, than the quantitatively strong collection at BECPL. A substantial part of the BECPL title count represents part Grosvenor collection holdings and not a deliberately developed and maintained research level collection.

In the fields of music and fine arts, LC classes M and N, BECPL has exceptionally strong holdings. However, with reference to LC class N, the university may soon commit itself to the establishment of a school of fine arts offering graduate and undergraduate degrees in, among others, architecture.

In the fields of science and technology, while the two major libraries may be able to agree on areas of primary responsibility, some of the special libraries in the six counties will undoubtedly have materials not ordinarily available at either The University at Buffalo or BECPL, such as reports and/or foreign language periodicals or other publications. The problem of direct access to private company special libraries is appreciated. Among these libraries are frequent users of BECPL and The University at Buffalo resources.

Apart from the implications for a regional system BECPL and The University at Buffalo would find it useful to establish routines for updating regularly the periodical title and volume count prepared by them in the course of this study. Progressively, as the opportunity and finances permit, the two institutions could prepare and exchange lists of current subscriptions in their respective areas of subject responsibility to supplement any other sources such as union lists from which such information could be derived.

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[1] It may be training more teachers, but they will probably be subject oriented, and their library needs will be met in other LC class areas.

Particularly because of the rapidly changing nature of The University at Buffalo collection it is desirable that developments be frequently reviewed. Although the monograph accession program is ambitious and will in due course reflect clearly the library's strengths, the growth in the periodical collection will not be subject to the same cataloging delays as will that of book titles. Awareness of the periodical strengths will provide indicators to the library's accession policies and help measure changing relative strengths between the two primary regional research resources.

Chapter IV

INDUSTRY AND SPECIAL LIBRARIES

This chapter discusses the identifiable research level needs outside the academic community in the area, the special libraries, and the potential contribution these libraries might make to a regional system.

The Buffalo-Niagara area, already one of the nation's major industrial centers for the products traditionally developed at sites where inland water transport and hydroelectric power can be exploited, has more recently become important in the space-age industries of nucleonics and electronics. Thus, formerly a center for one of the largest electro-chemical and electro-metallurgical concentrations in the world, the Buffalo-Niagara area is becoming a center for research, especially in aero-space, cancer and nuclear physics. This development has brought to the region not only new industries but industries which are in an increasing number of instances research oriented.

Whereas the BECPL and, to a lesser extent in the past, the university library have provided the reference and research needs of the business and industrial community, many of the companies also maintain important, if limited collections, subject oriented to their specific needs. Not all of even those companies where laboratory research is important maintain their own libraries; some of the industrial laboratories are quite small.

The most recent Directory of Industrial Research Laboratories in New York State, published in 1964, lists approximately 125 in the six-county area. The directory shows for most of the laboratories listed the number of professional and technical staff employed. The directory is already somewhat out of date,[1] but it does point to some interesting emphases in the industrial research profile of the six counties at the time it was prepared. Appendix Table C-1 has abstracted from the directory the research laboratories listed in the six counties and, where shown, the numbers of professional and technical staff.[1] Professional staff shown on the table totals 4,095, technical staff 2,811.

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[1] The 1965 annual research issue of Buffalo, a monthly publication of the Buffalo Chamber of Commerce, reports on the research activities of a number of companies in the area which are not listed in the statewide directory.

In most instances, the professional staff numbers shown in the directory are then broken down by professional qualification. These include physicists, ceramic engineers, mechanical engineers, biologists, food technologists, mathematicians, statisticians, and several other professional categories. Further analysis of the information (not tabulated here) shows the primary importance of two categories in addition to those listed above. Of the 4,095 professional staff, 673 were identified as chemists (in 74 laboratories) and 1,564 were identified as engineers (in 77 laboratories), suggesting the weight of demand for library materials in these broad subject fields.

Twenty of the larger research laboratories were asked to estimate their professional and technical staff requirements in 1970 and 1975. Eighteen replied; four of the replies were ambiguous, e.g., not separating technical from professional staff estimates. The fourteen unambiguous replies reported among them 1,616 professional and 1,147 technical staff of the 4,095 and 2,811 totals in Appendix Table C-1. Thus, these laboratories represent 39.5% of the professional and 40.8% of the technical industrial research laboratory personnel reported in the directory. The following tabulation summarizes the totals of professional and technical employment projected by the fourteen laboratories in 1970 and 1975:

Employment Category	Percentage Increase over Figures in 1964 Directory	
Professional	27.4	56.7
Technical	22.6	83.9

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[1] The research staff shown in the directory for Canisius College and SUNY at Buffalo are not included in the table, as the total scientific academic staff at these institutions appear to be listed.

The respondent laboratories being among the largest are obviously not typical. Smaller laboratories may show much wider divergencies, but total changes are likely to parallel the total changes in the group of fourteen. These figures suggest a rate of increase among professional and technical people in industrial research laboratories consistent with the rate projected in Chapter V for the purpose of calculating the financial formula at the maximum. The projection for all scientific, technical and professional workers for the ten-year period was 35%. The rates shown above apply to the six-year period from 1964.

The specific library resources in the area are not limited to those directly related to the industrial research laboratories. Workers in such laboratories represent only a small part of the potential non-academic demand. Nor was a complete inventory of all special libraries attempted.

The New York State Special Libraries Association is currently preparing a directory of special libraries, and had distributed a questionnaire during the period of this study to libraries in the area. The data are now being coordinated prior to publication by the Special Libraries Association.[1] No attempt was made to duplicate the work being done by the SLA. The coordinator of the SLA study kindly permitted the consultants to examine the replies from those libraries which had responded to the questionnaire.

Apart from unique collections such as those held by the Buffalo and Erie County Historical Society, the replies examined suggest that technical and scientific collections held by special libraries in the area are concentrated in two or three areas. The industrial libraries reporting showed a heavy concentration in the field of chemistry, particularly polymer chemistry, in engineering and in related fields. Many of the respondent libraries indicated that use of their resources was restricted because of company policy, or for security reasons when material was classified, but it was also evident from the questionnaires that the common practice among special librarians of interlibrary privileges applied.

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[1] Since published: A Directory of Special Libraries and Research Resources in New York State, Special Libraries Association, January 1966.

Pending the availability of a more complete inventory of special library resources such as may be provided by the SLA, a summary of special libraries listed in the American Library Directory[1] gives a partial list of the special library resources in the area. Appendix Table C-2 abstracts from the directory selected information about these libraries. The table shows by city and county the special libraries listed in the directory, the number of volumes reported held, the number of bound periodicals or the annual periodical budget, special reports held, and the subject area of the collection.

As has been indicated elsewhere in this report it is unrealistic to expect open access to special libraries which are wholly private company-supported and established to meet the parent company's own needs. However, the establishment of a regional reference and research resources program, with an agency established to administer such a program, could provide the opportunity for a formalized procedure for the utilization of special library resources without placing an undue burden on the cooperating special libraries.

If BECPL or The University at Buffalo is designated the research resource on aeronautics, for example, it would have the responsibility for maintaining a collection in this subject area. At the service level, however, it might also be expected to know where to find material not held by it. A major such resource in the area appears to be Bell Aerosystems Company. Whereas the Bell Aerosystems Company library might not be opened for direct use by non-affiliated researchers, the regional board might negotiate with the company library for service when channeled through BECPL. It could be one of the functions of BECPL to maintain such liaison as necessary with the special librarian at Bell to insure up-to-date knowledge about the collection. Correspondingly, the BECPL librarian responsible would need to keep informed about other resources in aeronautics, both within the state and elsewhere. The professional skills of the librarian would thereby be put to their logical use; his broadened knowledge of the resources becomes available not only to the user who may need material from the Bell library, but also to aid the Bell company librarian in search of material not held there.

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[1] American Library Directory, 24th Edition, R. R. Bowker Company, New York, 1964.

The cooperating special library can thus be confident that requests for help have been appropriately screened; the designated library will accumulate information about the kinds of requests being made which will point to the direction in which the designated library's collection should be developed. Where material requested is known to be available in more than one special library in the area, the BECPL or The University at Buffalo librarian responsible could distribute equitably the burden of requests.

Arrangements with the important special libraries in the area could be contracted for by the regional board, in order to establish the appropriate channels. This would both help to ensure service for research workers and also protect the cooperating libraries from the embarrassment of having to determine the legitimacy or reasonableness of requests for help. The burden of justifying a request would fall on the library designated subject research resource in the region.

Chapter V

THE 3R's FINANCING FORMULA

> 285. Each regional reference and research library system shall be entitled to receive, upon chartering, a nonrecurring grant of twenty-five thousand dollars ($25,000) . . . .
>
> 284.2. Each such approved library system shall receive annually an amount equal to the sum of six dollars for each full-time student enrolled in all chartered institutions of higher education located in the region served by such library system. Where students attend less than full time, the library system shall be entitled to receive the sum of three dollars.
>
> 284.3. Each such approved system shall receive annually a sum equal to one dollar for each professional worker residing in the area served by the system as shown in the major occupation group of the experienced civilian labor force designated as "professional, technical and kindred workers" in the report of general characteristics of population for New York State published by the United States Department of Commerce, Bureau of Census, for the last preceding decennial census." [1]

This study undertook to estimate for the year 1970 the total funds available under the 3R's financing formula, based on projections of college students and professional workers in the region.

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[1] State of New York, "An act to amend the education law, in relation to development of reference and research library resources, and making an appropriation therefor," January 15, 1965.

For the two SUNY colleges and SUNY at Buffalo the projections were supplied by the institutions, as were the projections for Canisius, D'Youville, Rosary Hill and St. Bonaventure. The office of the Executive Dean for Two Year Colleges, SUNY, provided the projections for the three publicly-supported community colleges. For those private institutions for which the institution's own projections were not available, the average change projected by the four private institutions which did reply was arbitrarily applied to the 1964 enrollments of the other private institution to estimate their 1970 enrollments.

Table 13 sets out the projected 1970 enrollments to which the financial formula for students has been applied. As will be seen from the table, in some instances figures were available in terms of full-time equivalents, in others a breakdown between part-time and full-time students was clearly indicated.

In estimating the funds available, all full-time enrollment figures, FTE figures and undifferentiated figures, were treated as full-time students, under the formula, for the $6.00 per capita grant. Since the formula is not expressed in terms of FTE there is a margin of error inherent in using FTE figures. If the actual number of part-time students is in a ratio greater than two to one FTE, the financial entitlement is underestimated. If, on the other hand, each FTE represents, on average, fewer than two part-time students enrolled, the financial entitlement is overstated.

The largest enrollment component in the table is that of The University at Buffalo, in which no differentiation is made between full-time and part-time students, i.e., this figure represents a head count. The total enrollment is treated as eligible for the full-time $6.00 grant, which overstates the entitlement. This does not affect the scale or the general value of the result; the margin of error inherent in the projections themselves must be accepted as at least as great as that introduced by imprecise weighting of the enrollment figures as between full-time and part-time enrollments. On the basis of the figures in the table:

41,019	full-time	@	$6.00	=	$246,114
6,700	FTE	@	$6.00	=	40,200
4,127	part-time	@	$3.00	=	12,381.

The total student-based funds available would be $298,695.

Table 13

ESTIMATES OF STUDENT ENROLLMENTS FOR 19 INSTITUTIONS OF HIGHER EDUCATION IN SIX-COUNTY AREA, BUFFALO-NIAGARA REGION

1970

College or University	Enrollment Projected—1970		
	Full-Time	Part-Time	FTE*
Buffalo Bible Institute	16	74	
Canisius College	2,100	1,650	
D'Youville College	1,025	80	
Mt. St. Joseph's Teachers College	135	461	
Niagara University	2,204	473	
Rosary Hill College	1,275	100	
St. Bonaventure University	2,375	550	
St. John Vianney Seminary	150	59	
SUNY at Buffalo	20,559		
SUNY College at Buffalo	8,000		600
SUNY College at Fredonia	2,850	595	
Buffalo Diocesan Seminary	127		
Erie County Technical Institute			4,000
Immaculata Junior College	97		
Jamestown Community College			1,000
Niagara Community College			1,100
St. Clare Junior College	18	27	
Sancta Maria Junior College	23	30	
Villa Maria Junior College	65	28	
Totals	41,019	4,127	6,700

*Full-time equivalent.

Projections of the professional, technical and kindred workers employed in the area in 1970 present greater difficulties than projections of the student population. The six counties in the area show different population and employment patterns and different socio-economic trends. Cattaraugus and Chautauqua counties in the southern part of the region have shown a much slower rate of population growth in the 50's and 60's than the other counties. While the population in the City of Buffalo has declined, that in the urban communities around Buffalo has increased, as it has for the area as a whole.

In each of the six counties, the ratio of the total population employed was lower in the 1960 census than in the 1950 census. Conversely, the ratio of the working population classified as scientific, technical and professional was greater in 1960 than in 1950.

Thus population trends, trends of employed workers as a percent of population and the ratio of employed population classified as scientific, technical and professional move in contradictory ways. Table 14 below shows for each of the six counties and for the area as a whole the percentage changes between 1950 and 1960 in total population, in total number of employed, and in total number of scientific, technical and professional workers. The census data show

Table 14

MOVEMENTS IN POPULATION AND EMPLOYMENT
IN SIX-COUNTY AREA, BUFFALO-NIAGARA REGION
1950-1960

County	Percentage Change		
	Total Population	Population Employed	Scientific, Technical and Professional Workers
Cattaraugus	2.9	- 0.4	34.4
Chautauqua	7.5	- 0.9	23.7
Erie	18.4	11.9	34.5
Genesee	13.5	7.7	39.9
Niagara	27.5	18.5	41.9
Orleans	14.5	14.3	53.6
Six counties	17.5	10.7	35.0

that while the population in the area increased by 17.5%, the employed population rose by only 10.7%. The shifting age distribution in the area was a factor in this relative decline; whereas in 1960, 31% of the population was under the age of 15, in 1950 the proporation was only 25%. Considering only the working age population, i.e., those over 14, the 1960 ratio was higher than in 1950. The most dramatic increase is, as seen in the table, that in the number of employed classified as scientific, technical and professional workers.

Even with this increase, the *ratio* of scientific, technical and professional workers to all employed workers in 1960 was lower in each of the counties than in the state as a whole. The following shows the ratio for the state as a whole, for each of the counties, and for the six-county area, according to the decennial census.

New York State	12.5%
Cattaraugus	10.8%
Chautauqua	10.1%
Erie	12.0%
Niagara	11.2%
Genesee	10.2%
Orleans	9.5%
Six-county area	11.5%

For the purpose of estimating the state grant in 1970 under the 3R's financial formula two extremes of a possible range have been calculated. Population figures for 1964 for the six counties[1] show the population growth trend since 1950 continuing. Assuming, at the minimum, that the population grows in the 1960's at the rate experienced in the 1950's (17.5%) and that neither the ratio employed nor the *proportion* of scientific, technical and professional workers increases, the population in 1970 would then be 1,904,292. The number employed would be 690,507. The ratio of scientific, technical and professional workers in 1960 was 11.5% of all workers employed; assuming the same ratio, would produce 79,408 scientific, technical and professional workers in 1970.

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[1] *Business Fact Book*, New York State Department of Commerce, Albany, 1964.

At the other extreme of the range, if the number of professional, scientific and technical workers in the labor force increased at the rate experienced in the 1950's, by 1970 there would be 92,028. This maximum estimate is probably more nearly the number to be expected. For the purpose of the calculation, however, the range indicated provides a reasonable estimate.

At $1.00 per scientific, technical and professional worker the financial aid would range from $79,408 to $92,028.

The total funds available in 1970 under the 3R's financing formula would comprise:

non-recurring grant	$ 25,000[1]
student-based grant	298,695
professional, technical and kindred worker-based grant	79,408 to 92,028

In rounded figures the grant for a reference and research resources regional program, incorporating the six counties, would range from $403,000 to $416,000.

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[1] In the year in which the regional system is established.

Chapter VI

IMPLICATIONS FOR A BUFFALO-NIAGARA REGIONAL 3R's SYSTEM

In this chapter a summary of the major findings of this report is presented and the implications for the development of a regional 3R's system are explored. Designation of various institutional libraries to perform various functions would presumably be determined at an early stage in the organizational development of the regional system. Based upon the findings of this study a number of suggestions are made which may serve as useful guidelines when the system is formed.

SUMMARY OF FINDINGS

To consider first the public libraries, it is clear that one collection is so far superior to all other collections in the area that it represents a unique resource. The central library in the Buffalo and Erie County system showed as of January 1, 1965 holdings of 1,207,184 volumes. In the Nioga System (Niagara-Genesee-Orleans counties), the Niagara Falls Public Library reported 191,176 volumes; in the Chautauqua-Cattaraugus Library System the largest selection was held by the Jamestown Public Library, 95,326 volumes. In each of the three systems, the next largest holdings are substantially below those of the largest collection.

BECPL acquisitions plans are directed toward maximization of the number of titles acquired and the development of the holdings at the branches. This policy will mean minimizing the duplication of titles at the BECPL center library. It will not, therefore, in the future be in a position to offer the kind of circulation service to undergraduates which has been common in the past.

In the six-county area, there are 19 academic institutions including seven community colleges. Several of these institutions are small and could not be expected to have holdings significant enough to make any contribution to a regional reference or research resources system.

Eight of the 11 four-year colleges in the six counties are in Buffalo; of the other three, one is in Niagara, one in Cattaraugus and the last is in Chautauqua County.

Seventy-five percent of all undergraduate enrollment in 1964 in the 19 colleges and universities in the region was in publicly-supported institutions.

The collection at The University at Buffalo is far greater than that of any other academic institution in the area. However, three, Canisius at Buffalo, St. Bonaventure University located in the town of St. Bonaventure, and the SUNY College at Buffalo, have collections in excess of 100,000 volumes. Each of these three and a number of other academic institutions have also projected large increases in their library holdings in the next ten years.

The present and projected plans for graduate study at The University at Buffalo are important factors in determining the future development of this library. It is intended that the university library will achieve a research level collection only in those areas in which graduate studies are offered.

St. Bonaventure is today the major academic library resource outside the Buffalo area. By 1970 SUNY College at Buffalo will have the larges collection, after The University at Buffalo, of any academic institution in the area.

According to present acquisitions plans, by 1975 the academic institutions in the area offering at least a baccalaureate program should have achieved ALA standards for total holdings.

A comparison of the BECPL holdings and those of The University at Buffalo shows that whereas the pattern of the acquisitions policies of the former is already reflected in its holdings, the pattern of the university's holdings is only just emerging. The BECPL's holdings of monograph titles exceed those at the university in all major LC subject areas with the exception of medicine and law. However this superiority in numbers does not apply to periodical holdings. In many subject areas the university's holdings of periodical titles and volumes already exceed those at BECPL.

The distribution of industry in the six counties shows the major focus in Erie County with a secondary focus in Niagara County. There are approximately 125 industrial research laboratories in the area.

Special library resources in the six counties cover several subject areas quite deeply, for example, polymer chemistry.

Many industries and research laboratories are heavy borrowers from BECPL and, to a lesser extent at present, from The University at Buffalo library.

If the six-county area is designated a region under the 3R's program, it will be entitled to $403,000 to $416,000 in 1970 (inclusive of the initial $25,000 grant) according to the financing formula in the act.

ELEMENTS OF THE SYSTEM

1. The BECPL and The University at Buffalo library, as principal research libraries in the region, would serve as primary resources in most subject areas.

   It would be premature at this time to attempt a determination of the specific areas for which each library would assume major responsibility. However, as soon as a regional system is developed temporary or short-term responsibilities could be agreed upon which would be consistent with the acquisition plans of each library. In the fields of law and medicine it would already seem clear that the university might be asked to assume permanent responsibility. Likewise in music, BECPL has so well established its service role that it may be possible to designate it as the principal resource in that area. An example of short-term responsibility can be seen in LC class N-Fine Arts where at present BECPL is strongest. However, the university may soon commit itself to the establishment of a school of fine arts offering graduate and undergraduate degrees in, among others, architecture.

   Where one of the libraries shows overwhelming relative strength, even though its holdings are not substantial, it should be designated the regional reference resource. Such a designation would acknowledge the service responsibility of the designated library, but would not necessarily imply the need for a greatly expanded acquisition program if the demand in the region did not warrant one. In LC classes U and V, for example, BECPL could be designated as responsible for maintaining reference level materials and providing reference services. Such responsibilities could include providing finding services, helping to meet any research needs beyond what could be served from its own collection by locating material and arranging interlibrary loan where possible. BECPL would, under such a designation, be the library which knows about sources and materials in the fields of designation even though it does not collect deeply in those fields.

Long-term programs would fix responsibility and the regional authority could negotiate with the designated library the financed support and the kinds of services to be provided. Even such fixed designations may require a phased program related perhaps to staffing or developing appropriate techniques of service.

In the long run, taking into account the developmental plans of the university, it would seem reasonable to expect that the university will become the strongest area resource in all important fields of graduate research for which it offers programs. However, the possible designation of The University at Buffalo as primary research resource should not imply that it would be the library of first recourse for all reference requests in the designated subject areas. Requests from public libraries in the Nioga and the Chautauqua-Cattaraugus library systems, for example, could be channeled from the respective system headquarters to the BECPL for service and/or screening.

2. The State University College at Buffalo would serve as principal reference center for undergraduates from all Buffalo area colleges with the exception of The University at Buffalo.

The projected library at SUNY College at Buffalo—450,000 volumes by 1975—will be the largest in the six-county area after that at The University at Buffalo Undergraduate projections for the college suggest that by that date it may have as much as 50% of all undergraduates in the area other than those at The University at Buffalo. At least for some years BECPL will continue to serve undergraduates, but the increase in their numbers, plus the growing demands on BECPL at the school level, warrants designation of a good undergraduate collection in the area as a second undergraduate resource. The regional board would want to explore with the College at Buffalo how such a program could be met, expecially since the number of reader stations at the college library may, be inadequate to meet a large influx of students from other institutions.

3. SUNY College at Fredonia would serve undergraduate needs (including community college) southwest of Buffalo.

   Fredonia is the smallest of the three SUNY institutions in the area, but its development in accordance with the SUNY master plan will make it strong relative to the community colleges in the area. As a State University institution, it could provide library facilities to other publicly-supported institutions and to students at private junior colleges who would find it a convenient resource.

4. Niagara University would serve undergraduate needs (including community college) northwest of Buffalo.

   The Niagara area is growing and for many students living in the area Niagara University will be more conveniently located than any other college or public library. The university's projected holdings by 1975 is 150,000 and would in all likelihood have to be supplemented from regional agency funds if the burden of outside students becomes to heavy.

5. St. Bonaventure University serves as a supplementary research level center in a regional program.

   There is some industry in the southeastern part of the six county area for which St. Bonaventure might be an initial research source. If St. Bonaventure is designated a supplementary research level center, it could become a channel for research level requests from that part of the region to The University at Buffalo collection or to BECPL, as may be determined by the subject area.

6. BECPL would continue its service to business and commercial/financial interests in the community.

   The library has strong holdings and plans to maintain them in the more expensive business services. It also has developed the reference skills among its staff to provide superior reference services of this type to the business community. This is not a service which could economically be disseminated among a number of libraries and it is clear that this function is not one which The University at Buffalo should undertake.

7. Special libraries in the area would, to the extent possible, regularize access to their facilities and materials resources.

   Special libraries, by company policy for security reasons, are not able to offer unrestricted access to their holdings. In order to meet these legitimate concerns and yet maximize the utilization of resources in the region, the appropriate designated library (BECPL or UB) in the subject area could be officially established as the channel either for securing material or, when appropriate, for recommending direct access to a special library. Formal establishment of such procedures would reassure privately-supported special libraries that their cooperation would not encourage unfair exploitation of their facilities.

APPENDIXES

Appendix A

ACQUISITIONS POLICY GUIDELINES
THE STATE UNIVERSITY AT BUFFALO

This appendix summarizes the present acquisitions policy at The State University at Buffalo, Responsibility for materials selection lies equally with the library staff and with the faculty.

DEFINITIONS OF ACQUISITIONS LEVELS

The following definitions serve as guidelines for the establishment of several acquisitions levels for the university libraries.

Level I: The General Reference Collection Level

A general reference collection in a subject field or narrower area is indicated when the subject is not highly germane to the programs of the university, or where the demand will probably be so infrequent as not to warrant maintenance of a collection in greater depth.

By definition, then, a general reference collection is intended primarily for quick and sketchy reference rather than research use. It is a collection adequate to determine in broad outline the basic knowledge of a subject. It would consist, as may be appropriate to the particular subject, of the best dictionary or dictionaries, an encyclopedia or encyclopedias, a selection of the basic journals in the field, yearbooks, annual statistical abstracts, historical surveys, and finding tools. Important monographs will also be collected. A general reference collection will be directed to meeting requests for information on the current knowledge of the subject or the state of the art. Historical surveys included would be considered adequate for the presentation of the important past knowledge of the subject, and bibliographical finding tools would enable reference to other libraries within or outside of The State University of New York complex for the specifically research type material.

Level II: The Limited Research Collection Level

At this level of collecting one would place material normally found in the well supported undergraduate library. The limited research collection would have to be adequate, not only to determine the current knowledge in a subject more deeply than could be done with a general reference collection, but also would suffice for limited historical or comparative analysis. It includes dictionaries, encyclopedias, comprehensive bibliographies, indexing and abstracting services, and a wider range of periodicals than would be included in a general reference collection. In contrast to the highly selective purchase of books for the general reference level, a limited research collection would acquire a richer selection of monographs. A collection (by subject) at this level would be aimed at meeting research rather than reference needs.

Level III: The Comprehensive Research Collection Level

The basic justification for a comprehensive research collection is compatibility with the avowed purpose of the university. In the Library of Congress or Dewey Decimal classification systems many sub-classes will be important enough to that library's clientele to warrant Level III acquisition depth although the main class may be of lesser significance.

A comprehensive research collection extends the limited research collection (Level II) by a still wider selection of books and periodicals, published both in the United States and abroad, plus the most important older works for historical research in the subject. Whereas the limited research collection should concentrate primarily in its acquisition program on current material, a comprehensive research collection in the area of concentration would also undertake to build up holdings of out-of-print materials and to complete the runs of periodicals necessary for historical research and analysis.

Level IV: The Exhaustive Research Collection Level

An exhaustive collection is justified in that university within the State University complex which holds the major responsibility for developing, maintaining, and preserving a collection in an assigned field.

The basic justification for an exhaustive research collection is that [a] University Center has been officially designated to be State University of New York's main resource for that subject area or subclassification of knowledge and is relied upon to be and is acknowledged by other Centers to be the only major depth resource library for that subject.

An exhaustive collection ideally must endeavor to include everything available on the subject in all editions and translations and in all languages.

The individual university librarian, working with the graduate school deans, will find it imperative to be informed well in advance on shifts in academic emphasis in the curricular offerings of his institution.

Appendix B

COMPARATIVE STRENGTHS OF BECPL AND SUNY AT BUFFALO COLLECTIONS

Table B-1

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY MONOGRAPH TITLE COUNT BY SUBJECT[a]

Library of Congress Classification	Library of Congress Shelf List	Title Count		Total
		Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
A	1,679	46	498	2,223
B-BD	2,863	517	2,311	5,691
BF	3,280	102	288	3,670
BH-BX	16,865	2,260	6,669	25,794
CB	588	—	—	588
CC	96	—	—	96
CD	442	—	—	442
CE	41	—	—	41
CJ	278	—	—	278
CN	6	—	—	6
CR-CT	5,685	—	—	5,685
D	6,820	257	2,733	9,810
DA	5,338	641	1,573	7,552
DB	440	—	—	440
DC	2,834	367	845	4,046
DD	1,210	143	435	1,788

Library of Congress Classification	Library of Congress Shelf List	Title Count		Total
		Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
DE	95	40	594	729
DF	501	—	—	501
DG	1,045	235	427	1,707
DH-DJ	212	208	384	804
DK	1,687	95	343	2,125
DL	328	51	169	548
DP	470	85	267	822
DQ	174	—	84	258
DR	323	7	203	533
DS	4,785	642	1,558	6,985
DT	1,776	321	741	2,838
DU	665	125	399	1,189
DX	34	—	—	34
E	12,456	1,274	4,676[c]	18,406
F 1- 999	22,810	81	68	22,959
1001-1199	1,158	—	350	1,508
1201-9999	2,180	274	777	3,231

Library of Congress Classification	Library of Congress Shelf List	Title Count		Total
		Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
G-GC	2,438	427	909	3,774
GF	58	—	—	58
GN-GT	1,505	208	573	2,286
GV	5,020	137	3,298	8,455
H	307	—	—	307
HA	370	—	63	433
HB-HC	4,080	14	266	4,360
HD 1-2299	1,685	—	5,611[d]	7,296
2300-2320	0	—	—	0
2321-3570	390	—	—	390
3571-4799	254	—	—	254
4800-8999	2,796	—	—	2,796
9000-9949	1,804	—	—	1,804
9950-9999	80	—	—	80
HE	2,083	4	1,747	3,834
HF 1-4999	1,246	120	1,971	3,337
5000-5414	472	—	—	472
5415	236	—	—	236

Library of Congress Classification		Library of Congress Shelf List	Title Count		Total
			Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
HF	5416-5800	1,674	—	—	1,674
	5801-6000	298	—	—	298
	6001-6201	106	—	—	106
HG		2,580	—	267	2,847
HJ	1-9699	1,423	—	—	1,423
	9700-9950	26	—	—	26
	9951-9955	—	—	—	—
	9956-9995	1	—	—	1
	9996-9999	—	—	—	—
HM-HT		4,785	110	1,041	5,936
HV		4,155	192	1,041	5,388
HX		1,073	40	168	1,281
J-JX		9,344	748	4,920	15,012
K		937	412	1,448	2,797
L-LB	1050	2,868	208	2,481	5,557
LB	1051-1140	598	—	—	598
LB	1141-LJ	6,423	—	—	6,423

Library of Congress Classification	Library of Congress Shelf List	Title Count		Total
		Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
LT	13	—	—	13
M-MT	20,700	—	259	20,959
N-NK	19,068	269	4,102	23,439
P	350	289	1,453	2,092
PA	2,168	81	391	2,640
PB	185	—	—	185
PC 1-2000	118	69	196	383
2001-3800	326	113	594	1,033
3801-4000	3	—	—	3
4001-5498	293	28	140	461
PD	93	187	699	979
PE	1,747	—	—	1,747
PF	236	—	—	236
PG-PM	2,216	242	782	3,240
PN 1-1999	2,621	722	1,698	5,041
2000-3399	2,131	—	—	2,131
4000-4321	685	—	—	685

Library of Congress Classification		Library of Congress Shelf List	Title Count		Total
			Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
PN	4322-9999	3,527	—	—	3,527
	1-2599	3,194	—	—	3,194
	2600-2651	1,256	—	—	1,256
	2652-3999	31	—	—	31
	4000-6000	626	—	—	626
	6001-6600	338	—	—	338
	6601-6650	138	—	—	138
	6651-7296	55	—	—	55
	7297-8930	149	—	—	149
	8931-9999	69	—	—	69
PR	1-5999	11,995	700	3,823	16,518
	6000-6050	4,573	—	—	4,573
PS	1-3499	11,277	700	3,500	15,477
	3500-3550	10,759	—	—	10,759
	3551-3999	135	—	—	135
PT	1-2599	1,197	—	—	1,197
	2600-2654	900	—	—	900
	2655-9999	516	—	—	516
PZ		5,129	—	—	5,129

Library of Congress Classification		Library of Congress Shelf List	Title Count		Total
			Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
Q		1,505	326	503	2,334
QA		3,013	167	1,068	4,248
QB		1,066	225	398	1,689
QC	1- 699	1,770	263	760	2,793
	700- 800	389	—	379	768
	801- 999	699	—	—	699
QD		2,178	—	1,082	3,260
QE	1- 699	1,029	134	1,049	2,212
	700- 999	259	—	—	259
QH		2,000	395	643	3,038
QK		1,496	—	1,635	3,131
QL		2,679	—	—	2,679
QM		138	—	—	138
QP	1- 305	425	—	—	425
	306	309	—	—	309
	307- 460	125	—	—	125
	461- 471	11	—	—	11
	472- 499	33	—	—	33

Library of Congress Classification		Library of Congress Shelf List	Title Count		Total
			Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
QP	500- 801	112	—	—	112
	802- 999	24	—	—	24
QR		154	—	—	154
R-RB		2,168	1	1,626	3,795
RC	1- 422	635	—	—	635
	423- 427	56	—	—	56
	428- 999	907	—	—	907
RD-RE		227	—	—	227
RF	1- 289	7	—	—	7
	290- 320	15	—	—	15
	320 +	2	—	—	2
RG-RJ		411	—	—	411
RK		93	—	—	93
RL-RM		267	—	—	267
RS		125	—	—	125
RT		213	—	—	213
RV-RZ		23	—	—	23
S		6,685	291	1,405	8,381

Library of Congress Classification		Library of Congress Shelf List	Title Count		Total
			Grosvenor Dewey Classification	Buffalo Public Library Dewey Classification[b]	
T		1, 191	141	717	2, 049
TA-TH		3, 747	16	487	4, 250
TJ		1, 085	282	1, 957	3, 324
TK	1- 899	355	42	1, 779	2, 176
	900-9200	2, 018	—	—	2, 018
TL	1- 499	568	8	373	949
	500- 899	2, 152	—	861	3, 013
	900-4027	39	—	—	39
TN		1, 059	—	—	1, 059
TP		1, 727	—	4, 362[e]	6, 089
TR		807	1	315	1, 123
TS		1, 529	—	—	1, 529
TT		1, 010	—	—	1, 010
TX		2, 157	3	1, 600	3, 760
U		4, 324	—	—	4, 324
V		1, 961	—	—	1, 961
Z		10, 555	158	1, 568	12, 281
	Total				447, 172

a The library is in process of converting to Library of Congress classifications. The Grosvenor collection and Buffalo Public Library collections not yet reclassified have been distributed in the table to the respective LC categories which correspond most closely to the present Dewey classification. Some Dewey classifications do not have exact LC equivalents; gross inaccuracies arising from this cause are noted in the table.

b Experience in the reclassification of the Buffalo Public Library holdings indicates that approximately 30% of Dewey classified titles are duplicated in the LC shelf list. Duplication varies with the subject; it is lowest in the field of technology. Figures shown in the table are 65% of the actual BPL Dewey title count (70% for technology classes) to compensate for duplications.

c Includes many items which would be reclassified under F in LC.

d Should be spread over all HD class in LC

e Should be spread over several T classes in LC.

Notes:

Items not included in shelf list count—BECPL

The following irregular collections were not included in the shelf list count of the Buffalo and Erie County Public Library taken November 1965.

1. Granger collection—a collection of poetry anthologies indexed in Granger's Index. — 570 titles Most would class as P.

2. League of Nations collection—a collection of official L of N publications. Approximately 2,970 titles. Most would class as J.

3. Congressional serial set—miscellaneous U.S. documents. Approximately 10,000 volumes. All classes. Many would class as J.

4. Rare Book Room—about 15,000 volumes
plus 400 mss.
130 prints
2,700 World War I posters.

5. Maps—about 39, 200 items.
   Two largest groups—U.S. Geological Survey and Army Map Service maps.

6. Fiction—about 40, 000 titles
   plus 4, 160 foreign language titles.

7. Newspapers—a large collection of local newspapers. (These are gradually being microfilmed.)

8. Microforms

   a. Microfilm

      The Library has about 13, 700 reels of microfilm. This is made up of :

3, 268	Periodicals (reported in periodical count)
717	English Literary Periodicals before 1900
285	American Periodicals before 1850
816	Books printed in England before 1640
123	Genealogy (mostly census lists)
30	Music
8, 450	Newspapers

   b. Microcards—approximately 20, 000 cards including:

Annual reports of corporations listed on New York Stock Exchange	15, 000 cards
Music—74 titles	418 cards
Genealogy—72 titles	600 cards
Federal Register	3, 200 cards

   c. Microprint— 3 series
      JPRS service 1958 to date
      Early American newspapers
      Congressional set v. 1 (1817)—v. 210 (1831)

   d. Microfiche
      Thomas Register—Catalogs of companies listed.

Table B-2

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO MONOGRAPH TITLE COUNT BY SUBJECT

Library of Congress Classification	Number
A	1,437
B-BD	5,855[a]
BF	4,238
BH-BX	8,983[a]
CB	524
CC	68
CD	55
CE	23
CJ	82
CN	69
CR-CT	777
D	4,241
DA	3,314
DB	223
DC	2,197
DD	1,094
DE	65
DF	461
DG	900
DH-DJ	114
DK	1,422[a]
DL	95
DP	560
DQ	44
DR	208
DS	2,900
DT	1,993[a]
DU	314
DX	11
E	7,296
F 1- 999	2,645
1001-1199	424
1201-9999	3,010
G-GC	1,449
GF	59

Library of Congress Classification	Number
GN-GT	1,772
GV	1,061
H	741
HA	760
HB-HC	4,847
HD 1-2299	1,449
2300-2320	—
2321-3570	571
3571-4799	200
4800-8999	3,506
9000-9949	1,564
HE	1,044
HF 1-4999	1,252
5000-5414	531
5415	336
5416-5800	2,088
5801-6000	284
6001-6201	83
HG	2,775
HJ 1-9699	944
9700-9950	16
9951-9955	—
9956-9995	1
9996-9999	—
HM-HT	3,829
HV	2,738
HX	788
J-JX[b]	7,470[b]
K[b]	16,299[b]
L-LB 1050	3,547
LB 1051-1140	810
1141-LJ	5,691
LT	3
LV	1
M-MT	4,941
N-NK	5,601

Library of Congress Classification		Number	Library of Congress Classification		Number
P		517	PQ	6001-6600	1,382
PA		2,734		6601-6650	1,140
PB		209		6651-7296	184
PC	1-2000	238		7297-8930	2,269
	2001-3800	514		8931-9999	137
	3801-4000	29	PR	1-5999	11,075
	4001-5498	313		6000-6050	3,960
PD		265		6051-9900	364
PE		1,151	PS	1-3499	3,686
PF		623		3500-3550	4,788
PG-PM		2,952[a]		3551-3999	438
PN	1-1999	1,766	PT	1-2599	2,361
	2000-3399	818		2600-2654	1,501
	3400-3999	80		2655-9999	392
	4000-4321	362	PZ		723
	4322-9999	1,450	Q		2,755
PQ	1-2599	4,495	QA		7,337[a]
	2600-2651	4,646	QB		537
	2652-3999	86	QC	1- 699	3,097
	4000-6000	814			

Library of Congress Classification		Number	Library of Congress Classification		Number
QC	700- 800	588	RC	1- 422	1,881
	801- 999	324		423- 427	49
QD		3,752		428- 999	1,525
QE	1- 699	2,599		1000-1200	63
	700- 999	202	RD-RE		1,429
QH		1,472	RF	1- 289	89
QK		937		290- 320	14
QL		1,536		320-	20
QM		614	RG-RJ		807
QP	1- 305	1,057	RK		1,110
	- 306	12	RL-RM		781
	307- 460	266	RS		692
	461- 471	18	RT		763
	472- 499	41	RV-RZ		37
	500- 801	482	S		1,047
	802- 999	66			
QR		442	T		617
QU			TA-TH		2,825
			TJ		1,376
R-RB		2,863	TK	1- 899	258

Library of Congress Classification	Number
TK 900-9200	1,387
9201-9946	85
TL 1- 499	700
500- 899	1,095
900-4015	31
TN	830
TP	1,002
TR	130
TS	655
TT	37
TU	1
TX	146
U	919
V	388
Z	4,850[a]
Total	251,898

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a Includes uncataloged titles.
b Includes estimated holdings of law library.

Table B-3

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY AND THE STATE UNIVERSITY OF NEW YORK AT BUFFALO MONOGRAPH TITLE COUNT NOVEMBER 1965

Library of Congress Classification	Title Count	
	Buffalo and Erie County Public Library	The State University of New York at Buffalo
A General Works—Polygraphy	2,223	1,437
B Philosophy—Religion	35,155	19,076
C History—Auxiliary Sciences	7,136	1,598
D History and Topography (except America)	42,709	20,156
E America (General) and United States (General)	18,406	7,296
F United States (Local) and America (except the United States)	27,698	6,079
G Geography—Anthropology	14,573	4,341
H Social Sciences	44,579	30,347
J Political Science	15,012	7,470
K Law	2,797	16,299
L Education	12,591	10,052
M Music	20,959	4,941
N Fine Arts	23,439	5,601
P Language and Literature	85,443	58,762
Q Science	28,441	28,134
R Medicine	6,776	12,123
S Agriculture—Plant and Animal Husbandry	8,381	1,047
T Technology	32,388	11,175
U Military Science	4,324	919
V Naval Science	1,961	388
Z Bibliography and Library Science	12,281	4,850
Totals	447,172	251,898

Table B-4

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY
PERIODICAL COUNT
NOVEMBER 1965

Library of Congress Classification	Titles	Volumes	Reels
A	120	2,461	45
A (MAGS)	616	19,300	204
B-BD	19	450	—
BF	40	846	16
BH-BX	167	3,133	44
CB	—	—	—
CC	4	139	—
CD	1	24	—
CE	1	12	—
CJ	1	34	—
CN			
CR-CT	22	388	—
D	93	807	—
DA	9	107	—
DB	2	8	—
DC	3	52	—
DD	1	2	—

Library of Congress Classification		Titles	Volumes	Reels
DE		1	35	—
DF		2	37	—
DG		2	5	—
DH-DJ		3	57	—
DK		18	116	—
DL				
DP		3	5	15
DQ		—	—	—
DR		4	36	—
DS		45	456	—
DT		8	93	—
DU		9	45	12
DX		1	34	—
E		57	928	50
F	1- 999	87	2,604	3
	1001-1199	7	68	—
	1201-9999	8	179	15
G-GC		29	707	30

Library of Congress Classification		Titles	Volumes	Reels
GF		—	—	—
GN-GT		15	327	—
GV		16	312	—
H		26	467	13
HA		7	224	—
HB-HC		56	921	35
HD	1-2299	22	165	18
	2300-2320	—	—	—
	2321-3570	3	198	—
	3571-4799	7	16	—
	4800-8999	42	596	13
	9000-9949	27	256	1
HE		31	537	7
HF	1-4999	19	338	3
	5000-4514	31	1,160	150
	5415	1	7	1
	5416-5800	16	261	40
	5801-6000	10	281	28
	6001-6201	1	2	—

Library of Congress Classification		Titles	Volumes	Reels
HG		39	684	26
HJ	1-9699	12	60	24
	9700-9950	—	—	—
	9951-9955	—	—	—
	9956-9995	—	—	—
	9996-9999	—	—	—
HM-HT		46	639	59
HV		43	552	27
HX		16	99	—
J-JX		114	3,870	58
K		5	48	—
L-LB	1050	98	1,953	60
LB	1051-1140	4	54	8
	1141-LJ	35	436	27
LT		—	—	—
M-MT		112	1,394	—
N-NK		229	4,830	8

Library of Congress Classification		Titles	Volumes	Reels
P		14	265	—
PA		5	16	—
PB		7	258	—
PC	1-2000	2	60	—
	2001-3800	2	50	—
	3801-4000	—	—	—
	4001-5498	2	16	—
PD		1	4	—
PE		3	81	—
PF		—	—	—
PG-PM		1	1	—
PN	1-1999	41	305	3
	2000-3999	27	272	—
	4000-4321	4	28	—
	4322-9999	5	21	30
PQ	1-2599	9	48	—
	2600-2651	—	—	—
	2652-3999	—	—	—
	4000-6000	—	—	—

Library of Congress Classification		Titles	Volumes	Reels
PQ	6001-6600	2	27	—
	6601-6650	—	—	—
	6651-7296	—	—	—
	7297-8930	—	—	—
	8931-9999	—	—	—
PR	1-5999	18	219	—
	6000-6050	2	11	—
PS	1-3499	17	122	1
	3500-3550	1	1	—
PT	1-2599	—	—	—
	2600-2654	—	—	—
	2655-9999	—	—	—
PZ		1	6	—
Children's per PZ	5- 90	8	435	—
Q		102	3,678	14
QA		41	705	37
QB		13	238	32
QC	1- 699	55	1,332	71
	700- 800	14	212	—

Library of Congress Classification		Titles	Volumes	Reels
QC	801- 999	13	169	—
QD		79	3,864	225
QE	1- 699	20	587	—
	700- 999	—	—	—
QH		55	1,773	4
QK		20	356	—
QL		20	598	13
QM		—	—	—
QP	1- 305	—	—	—
	306	—	—	—
	307- 460	—	—	—
	461- 471	—	—	—
	472- 499	—	—	—
	500- 801	4	139	9
	802- 999	—	—	—
QR		—	—	—
R-RB		31	919	—
RC	1- 422	12	284	—

Library of Congress Classification	Titles	Volumes	Reels
RC 423- 427	1	10	—
428- 999	7	125	—
RD-RE	1	16	—
RF 1- 289	—	—	—
290- 320	—	—	—
320+	—	—	—
RG-RJ	1	1	—
RK	1	5	—
RL-RM	5	147	—
RS	1	14	—
RT	5	159	—
RV-RZ	—	—	—
S	128	2,303	105
T	67	1,232	125
Patents (T) 201- 339	4	11,996	131
TA-TH	138	3,571	244
TJ	38	783	89
TK 1- 899	47	1,246	179

Library of Congress Classification		Titles	Volumes	Reels
TK	900-9200	47	427	86
TL	1- 499	23	499	55
	500- 899	55	906	72
	900-	—	—	—
TN		64	947	171
TP		108	3,226	200
TR		39	599	14
TS		86	2,204	340
TT		12	170	14
TX		19	347	67
U		27	471	28
V		27	547	—
Z		167	2,864	—
Total		4,235	105,770	3,399

Table B-5

THE STATE UNIVERSITY OF NEW YORK AT BUFFALO
PERIODICAL COUNT
NOVEMBER 1965

Library of Congress Classification	Titles	Volumes	Reels
A	330	4,091	2,588
B-BD	134	2,267	—
BF	131	2,579	19
BH-BX	68	1,021	—
CB	86	1,803	—
CC	—	—	—
CD	—	—	765
CE	—	—	—
CJ	—	—	—
CN	—	—	—
CR-CT	1	80	—
D	30	750	—
12	—	—	5
DA	28	1,099	—
DB	3	7	—
DC	23	331	33
DD	36	998	42

Library of Congress Classification	Titles	Volumes	Reels
DE	3	128	—
DF	—	—	—
DG	14	137	—
DH-DJ	7	36	—
DK	27	319	—
DL	1	1	—
DP	8	139	—
DQ	3	71	—
DR	4	32	—
DS	28	259	—
DT	32	148	—
DU	4	8	—
DX	—	—	—
E	114	2,848	—
F 1- 999	43	691	—
1001-1199	—	—	—
1201-9999	1	31	—
G-GC	57	1,729	—

Library of Congress Classification		Titles	Volumes	Reels
GF		4	73	—
GN-GT		65	1,017	—
GV		9	60	—
H		11	472	—
HA		37	634	—
HB-HC		43	800	—
HD	1-2299	63	1,010	—
	2300-2320	—	—	—
	2321-3570	3	120	—
	3571-4799	—	—	—
	4800-8999	10	1,006	—
	9000-9949	—	—	—
HE		4	670	—
HF		—	—	3
	1-4999	97	1,271	—
	5000-5414	—	—	—
	5415	—	—	—
	5416-5800	2	65	—
	5801-6000	2	177	—

Library of Congress Classification		Titles	Volumes	Reels
HF	6001-6201	—	—	—
HG		76	1,791	—
HJ	1-9699	30	692	—
	9700-9950	—	—	—
	9951-9955	—	—	—
	9956-9995	—	—	—
	9996-9999	—	—	—
HM		—	—	38
HM-HT		70	851	—
HV		75	976	—
HX		13	175	—
J-JX		153	2,498	45
K		1,510*	45,094*	—
L-LB	1050	99	2,177	—
LB	1051-1140	—	—	—
	1141-LJ	116	1,647	—
LT		—	—	—
M-MT		53	563	—

* Estimated.

Library of Congress Classification		Titles	Volumes	Reels
N-NK		46	781	—
P		74	1,824	—
PA		11	135	—
PB		1	42	—
PC	1-2000	15	116	—
	2001-3800	—	—	—
	3801-4000	—	—	—
	4001-5498	—	—	—
PD		7	294	—
PE		2	77	—
PF		—	—	—
PG-PM		11	102	—
PN		—	—	4
	1-1999	57	907	—
	2000-3999	—	—	—
	4000-4321	1	29	—
	4322-9999	—	—	—
PQ	1-2599	23	529	—
	2600-2651	—	—	—

Library of Congress Classification		Titles	Volumes	Reels
PQ	2652-3999	—	—	—
	4000-6000	—	—	—
	6001-6600	—	—	—
	6601-6650	1	178	—
	6651-7296	—	—	—
	7297-8930	21	422	—
	8931-9999	—	—	—
PR	1-5999	34	911	—
	6000-6050	2	217	—
PS	1-3499	22	253	—
	3500-3550	—	—	—
PT	1-2599	13	575	—
	2600-2654	—	—	—
	2655-9999	—	—	—
PZ		—	—	—
Q		204	4,176	—
QA		146	2,703	—
QB		10	50	13
QC	1- 699	116	2,423	—

Library of Congress Classification		Titles	Volumes	Reels
QC	700- 800	—	—	—
	801- 999	—	—	—
QD		203	6,002	—
QE	1- 699	51	3,745	—
	700- 999	—	—	—
QH		115	2,104	—
QK		28	478	—
QL		26	1,112	—
QM		7	414	—
QP	1- 305	25	1,294	—
	306	—	—	—
	307- 460	—	—	—
	461- 471	—	—	—
	472- 499	—	—	—
	500- 801	—	—	—
	802- 999	—	—	—
QR		10	97	—
R-RZ		1,646	22,594	—
RC	1- 422	—	—	—

Library of Congress Classification		Titles	Volumes	Reels
RC	423- 427	—	—	—
	428- 999	—	—	—
RD-RE		—	—	—
RF	1- 289	—	—	—
	290- 320	—	—	—
	320+	—	—	—
RG-RJ		—	—	—
RK		322	3,787	—
RL-RM		—	—	—
RS		—	—	—
RT		—	—	—
RV-RZ		—	—	—
S		37	427	—
SB-SK		—	—	—
T		—	—	—
TA-TH		340	4,965	—
TJ		7	65	—
TK	1- 899	171	3,214	—

Library of Congress Classification		Titles	Volumes	Reels
TK	900-9200	—	—	—
TL	1- 499	39	593	—
	500- 899	—	—	—
TN		22	244	—
TP-TS		43	464	—
TR		—	—	—
TS		—	—	—
TT		2	48	—
TX		—	—	—
U		8	180	—
UA-UH		—	—	—
V		3	30	—
VA-VM		—	—	—
Z		118	1,497	—
Total		7,797	155,540	3,561

Library of Congress Classification	Microcards	Boxes Microprint
AP	—	19
J	—	288
Q	100	—
Z	800	—

Table B-6

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY AND THE STATE UNIVERSITY OF NEW YORK AT BUFFALO PERIODICAL COUNT NOVEMBER 1965

Library of Congress Classification	Titles		Volumes		Reels	
	Buffalo and Erie County Public Library	The State University of New York at Buffalo	Buffalo and Erie County Public Library	The State University of New York at Buffalo	Buffalo and Erie County Public Library	The State University of New York at Buffalo
A General Works-Polygraphy	736	330	21,761	4,091	209	2,588[a]
B Philosophy-Religion	226	333	4,429	5,867	60	19
C History-Auxiliary Sciences	29	87	597	1,883	—	765
D History and Topography-(except America)	204	251	1,895	4,463	27	86
E America (general) and United States (general)	57	114	928	2,848	50	—
F United States (local) and America except U.S.	102	44	2,851	722	18	—
G Geography-Anthropology	60	135	1,346	2,879	30	—
H Social Sciences	455	536	7,463	10,710	432	41
J Political Science	114	153	3,870	2,498	58	45[b]
K Law	5	1,510	48	45,094	—	—
L Education	137	215	2,443	3,824	95	—
M Music	112	53	1,394	563	—	—
N Fine Arts	229	46	4,830	781	8	—
P Language and Literature	172	295	2,246	6,611	34	4
Q Science	436	1,236	13,651	24,598	405	13[c]
R Medicine	65	1,968	1,680	26,381	—	—
S Agriculture-Plant and Animal Industry	128	37	2,303	427	105	—
T Technology	747	624	28,153	9,593	1,787	—
U Military Science	27	8	471	180	28	—
V Naval Science	27	3	547	30	—	—
Z Bibliography and Library Science	167	118	2,864	1,497	—	—[d]
Totals	4,235	8,096	105,770	155,540	3,399	3,561

[a] plus 19 boxes microprint
[b] plus 288 boxes microprint
[c] plus 100 microcards
[d] plus 800 microcards

Table B-7

BUFFALO AND ERIE COUNTY PUBLIC LIBRARY AND THE STATE UNIVERSITY OF NEW YORK AT BUFFALO COMPARISON OF RELATIVE QUANTITATIVE STRENGTHS ACCORDING TO LIBRARY OF CONGRESS CLASSIFICATION

Library of Congress Classification	Monographs		Periodicals			
			Titles		Volumes	
	Buffalo and Erie County Public Library as Percent of University at Buffalo	University at Buffalo as Percent of Buffalo and Erie County Public Library	Buffalo and Erie County Public Library as Percent of University at Buffalo	University at Buffalo as Percent of Buffalo and Erie County Public Library	Buffalo and Erie County Public Library as Percent of University at Buffalo	University at Buffalo as Percent of Buffalo and Erie County Public Library
A General Works-Polygraphy	155		223		409	
B Philosophy-Religion	184			147		132
C History-Auxiliary Sciences	447			300		315
D History and Topography (except America)	212			123		236
E America (general) and United States (general)	252			200		307
F United States (local) and America except U.S.	456		231		395	
G Geography-Anthropology	336			225		214
H Social Sciences	147			118		144
J Political Science	201			134	155	
K Law		583		3,002		2,986
L Education	125			157		157
M Music	424		211		248	
N Fine Arts	418		498		618	
P Language and Literature	145			172		294
Q Science	101			283		180
R Medicine		179		3,027		1,570
S Agriculture-Plant and Animal Husbandry	800		345		539	
T Technology	290		119		304	
U Military Science	471		337		262	
V Naval Science	505		900		1,823	
Z Bibliography and Library Science	253		141		191	

Appendix C

INDUSTRY AND SPECIAL LIBRARIES

Table C-1

INDUSTRIAL RESEARCH LABORATORIES
IN THE SIX-COUNTY AREA
BUFFALO-NIAGARA REGION
1964

Firm or Institution	Professional Staff	Technical Staff
A. J. Industries, Inc. — Roberts-Gordon Appliance Corp.	5	—
Aerovox Corporation—Hi-Q Division	17	24
Air Reduction Co., Inc. —Speer Carbon Co.	29	27
Albion Laboratories, Inc.	6	4
Allied Chemical Corp. —		
National Aniline Division	no report	no report
Plastics Division	no report	no report
Alox Corporation	4	7
Amercoat Corp. —Nukem Products Corp.	10	—
American Lubricants, Inc.	2	2
Arnold Equipment Corp. —DeMarkus Corp.	6	—
The Arc Corp. —The Firewel Co., Inc.	30	70
Arrow Tank Co., Inc.	1	1
Atlantic Research Corp. — Flight Sciences Laboratory	10	—
Birdair Structures, Inc.	6	3
Bisonite Co., Inc.	3	1
Blackstone Corporation	12	5
Blaw-Knox Co. —Buflovak Equipment Div.	16	6
The Buffalo China, Inc.	3	3
Buffalo Forge Co.	10	—
Buffalo Industrial Medical Center	2	1
The Buffalo Slag Co., Inc.	—	2
Cadet Chemical Corp.	4	5
Carborundum Company—	103	74
The Carborundum Metals Co.	21	7
J. W. Clement Co.	4	3
Co-Operative G. L. F. Exchange, Inc.	6	11
Commercial Testing & Engineering Co.	3	2

Firm or Institution	Professional Staff	Technical Staff
Conap, Inc.	5	5
Cornell University—		
Cornell Aeronautical Laboratory, Inc.	457	341
Creo-Dipt Co., Inc.	2	—
Den Laboratories, Inc.	10	5
Dresser Industries, Inc. —		
Clark Bros. Co., Division	55	3
Dunkirk Radiator Corp.	no report	1
Dunlop Tire & Rubber Corp.	10	27
E. I. du Pont de Nemours & Co. —	55	27
Yerkes Research Laboratory	112	283
Eastern States Farmers' Exchange, Inc.	4	4
Electro Refractories & Abrasives Corp.	7	11
Eltra Corporation	no report	no report
Excelco Developments, Inc.	9	12
FMC Corporation	42	41
Fedders Corporation	5	25
Feedstuff Laboratories	3	—
Fisher-Price Toys, Inc.	11	—
Ford Gum & Machine Co., Inc.	4	4
General Abrasive Co., Inc.	4	2
General-Electro Mechanical Corp.	2	2
General Motors Corp.	30	6
General Telephone & Electronics Corp. —		
Sylvania Electronic Systems	311	225
Sylvania Home & Commercial Electronics Division	45	56
The Gillette Company—Sterilon Corp.	2	1
Globe Woven Belting Co.	—	—
Great Lakes Carbon Corp. —		
Graphite Products Division	10	28
Harbison-Carborundom Corp.	10	5
E. C. Heidenreich Laboratories	1	2

Firm or Institution	Professional Staff	Technical Staff
Henry & Henry, Inc.	2	1
Hewitt-Robins, Inc.	16	6
Hooker Chemical Corp.—		
Hooker Research Center	110	125
Durez Plastics Division	46	—
Hysol Corporation	10	13
Industrial Consultants, Inc.	30	3
International Milling Co.	5	6
International Minerals & Chemical Corp.	3	3
Kinetic Dispersion Corp.	6	2
Kistler Instrument Corp.	7	15
Frederick L. Koethen	1	3
Lapp Insulator Co.	6	4
Lockport Felt Co., Inc.	3	5
Lockport Mills, Inc.	2	—
Magtrol, Inc.	4	1
Marlin-Rockwell Corp.	13	25
McDougall-Butler Co., Inc.	3	2
Moore Business Forms, Inc.	16	14
The Moore Laboratory	1	2
National Gypsum Co.	41	17
National Lead Co. —		
Titanium Alloy Mfg. Division	20	20
Newbrook Machine Corp.	10	20
Niagara Blower Co.	10	—
Niagara Frontier Designing Co., Inc.	12	10
Niagara Industrial Designers, Inc.	4	7
Niagara Machine & Tool Works	10	—
Niagara University—Chemistry Laboratory	2	—
Osmose Wood Preserving Co. of America, Inc.	3	3
Ottman Electronics, Inc.	5	3
The Oxford Corp.	8	4

Firm or Institution	Professional Staff	Technical Staff
Penn-Dixie Cement Corp.	5	8
Pittsburgh Testing Laboratory	24	—
Pratt & Lambert, Inc.	21	32
Reichhold Chemicals, Inc. —		
Varcum Chemical Division	no report	no report
Riverside Chemical Co., Inc.	4	2
St. Bonaventure University	15	12
Scott Aviation Corp. —		
Research & Development Center	26	13
Security Controls, Inc.	2	—
Sierra Research Corp.	16	10
Simonds Saw & Steel Co. —		
Spectrographic & Chemical Laboratory	4	8
Metallurgical Laboratory	4	12
Spaulding Fibre Co., Inc.	16	17
Starks Associates, Inc.	9	1
SUNY at Buffalo—Nuclear Research Center	15	—
Symington Wayne Corp.	7	4
Taylor Devices, Inc.	5	3
Textron, Inc. —		
Bell Aerosystems Co. (Buffalo)	175	53
Bell Aerosystems Co. (Niagara Falls)	961	560
Spencer Kellogg Division	18	7
Tremco Manufacturing Co.	4	5
Union Carbide Corp. —		
Carbon Products Division	26	9
Consumer Products Division	24	20
Linde Division - Research Laboratory	89	65
Linde Division - Development Laboratory	253	106
Metals Division	43	19
U. S. Rubber Reclaiming Co.	4	2
The Upson Company	5	4
Van der Horst Corp. of America	6	—

Firm or Institution	Professional Staff	Technical Staff
The W. & F. Manufacturing Co., Inc.	6	—
Welch Grape Juice Co., Inc.	4	3
Westinghouse Electric Corp.		
Westing-Arc Division	6	3
Motor & Gearing Division	96	38
Systems Control Laboratory	227	52
General Control Division	10	5
Williams Gold Refining Co.	4	2
Worthington Corp.		
Compressor & Engine Division	10	3
The Wurlitzer Company	23	45
Total	4,095	2,811

Source: Directory of Industrial Research Laboratories in New York State, State of New York, Department of Commerce, 1964.

Table C-2

SPECIAL LIBRARY RESOURCES IN SIX-COUNTY AREA BUFFALO-NIAGARA REGION

City and County Institution or Company	Volumes	Periodicals	Reports	Special Subject
Albion, Orleans				
General Foods Corp.	5,000			Food, chemistry, horticulture
Buffalo, Erie				
Albright-Knox Art Gallery	8,500			Art
Allied Chemical Corp.	6,000	10,500*		
Bell Aerosystems Co.	10,600	($5,500)	97,500	Aeronautics, astronautics, chemical sciences, engineering, flight, physical science, space flight
Bryant & Stratton Business Institute	4,315			Computer, data processing, etc.
Buffalo Courier-Express				Newspaper reference
Buffalo & Erie County Historical Society	25,000			Niagara frontier history
Buffalo Evening News	1,200			Newspaper reference
Buffalo Museum of Science, Society of Natural Sciences	32,000			Natural sciences
Cornell Aeronautical Laboratory	131,500			Aeronautical, computer and systems research, electronics, physics, vehicle dynamics
E. I. du Pont de Nemours & Co.	5,000			High polymer chemistry
Roswell Park Memorial Institute	19,626	($8,000)		Cancer and allied diseases
Sylvania Electronic Systems	2,630	($1,100)		Electricity, engineering, physics, technology

City and County Institution or Company	Volumes	Periodicals	Reports	Special Subject
Buffalo, Erie (continued)				
Textron, Inc.	1,800			Chemistry of oils, paints, etc.
Trico Products Corp.	5,000			Plastics, rubber, metallurgy
Medina, Orleans				
Board of Cooperative Educational Services	6,000			
Middleport, Niagara				
FMC Corp.	4,500	($3,600)		Chemistry and biological aspects of agricultural pesticides
Niagara Falls				
Carborundum Co.	8,000	($5,500)		High temperature materials
E. I. du Pont de Nemours & Co.	11,000			Chemistry
Hooker Chemical Corp.	7,500	($8,000)		Chemistry, rocket propellants, thermoplastics
National Lead Co.	1,200	($2,260)		Chemistry, ceramics, metallurgy, electronics
Speer Carbon Co.				Carbon and graphite technology
Union Carbide Corp.	5,500	6,000*	20,000	Chemical engineering, inorganic chemistry, metallurgy, solid state physics
North Tonawanda, Niagara				
Hooker Chemical Co.	2,000	($1,500)		Polymer chemistry, plastics, resins
Tonawanda, Erie				
Union Carbide Corp.	15,200	($12,000)		Air separation, chemical engineering, cryogenics

*Bound periodicals

Source: American Library Directory, 24th Edition, R. R. Bowker Company, New York, 1964.